

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXXVIII. NEW YORK, SATURDAY, JANUARY 19, 1901.

No. 3.

ORIGINAL ARTICLES

CONCLUSIONS FORMED AFTER SIX YEARS' EXPERIENCE WITH THE ANTITOXIN TREATMENT OF DIPHTHERIA.

By HENRY F. KOESTER, M.D.,
OF NEW YORK.

ABOUT six years ago, when the reports of Behring's observations on the antitoxin treatment of diphtheria began to reach this country, the medical profession probably was called upon to treat no pathological condition which so baffled the skill of its members as the affection now under consideration.

Mild cases in which the disease manifested itself by perhaps a slight tonsillar exudation, attended with slight, if any, constitutional symptoms, usually responded to the ordinary treatment then in vogue, consisting of the application of caustic or antiseptic remedies to the affected surfaces, with perhaps the addition of drugs or stimulants, directed toward sustaining the life of the patient until the disease was ended. Indeed, it had even then come to be considered that the administration of stimulants, preferably alcoholic, was productive of the best results obtainable. Some even went so far as to recommend and put into effect the use of stimulants to the point of intoxication. In malignant cases, as they were then called, the same plan of treatment was adopted, but the results were anything but gratifying; the mild cases would get well any way, while those of the severer type owed their recovery, which occasionally took place, to the intervention of a Divine Providence.

The situation was such that Behring's observations found the majority of medical men in a condition eager to grasp anything which offered the prospect of better results. The hope engendered by his writings gave way to a feeling of positive assurance, as patient after patient recovered under this plan of treatment, that the profession was at last in possession of a remedy for diphtheria which offered some hope of intelligent medicine. Nor have this hope and assurance grown less as time has elapsed; but, as the experiences of observers have continued to add testimony to its positive efficiency, the time has at last arrived when we feel that, given a case of diphtheria sufficiently early in its course, we have in antitoxin a remedy at our command which is positive in its effects. Although this is now the accepted belief, there are a few who still remain skeptical. The writer feels that if by a narration of his individual experience, extending over a series of 170 cases in private practice, to say nothing of the privilege he enjoyed in common with other attachés of the Health Department of the City of New York, he can do anything to remove the skepticism of a

single observer with regard to the value of antitoxin as a remedy for diphtheria, his justification for such a course is most ample.

Diphtheria may be truly said to be a disease of childhood, for of the 170 cases forming the subject of this article but five, or about three per cent., occurred in adults. The treatment formerly employed was especially distressing when applied to children. It necessitated the continued exhibition of brute force, and even when we felt that we had mastered the disease, as far as its outward manifestations were concerned, we did not feel for some time that all danger was passed. It was not an uncommon experience to carry a child through a long and exhausting sickness, which was often a struggle from beginning to end, only to have it finally succumb to a sudden attack of cardiac paralysis. Now, when called to a child afflicted with diphtheria during the first forty-eight hours of the disease, the writer feels justified in promising the family and friends that, with the antitoxin treatment properly applied, recovery will take place inside of forty-eight hours more.

This leads us to the consideration of what constitutes the proper application of the antitoxin treatment. We have seen a patient with diphtheria treated with antitoxin by one who was not familiar with its use, into whom the remedy had been injected with an ordinary hypodermic syringe, necessitating numerous injections of a small quantity of the serum, thus subjecting the patient to unnecessary torture and producing anything but satisfactory results.

Antitoxin, to obtain its best effects, must be used fearlessly and in quantity sufficient to be effective, which is never less than 2,000 units, and that in very mild cases. In severe cases at least 3,000 units must be used, and this dose repeated in from twelve to twenty-four hours. Antitoxin in itself, contrary to the expressed belief of some observers, never does any harm.

It is the opinion of the writer that antitoxin and an appropriate syringe should be a part of every practising physician's armamentarium—as much so as a pocket-case and a hypodermic syringe—and that he should never be without them in his pocket or instrument-case, when called to see a patient about whose condition he knows nothing. When called to see a child sick with an ailment which may or may not be diphtheria, the first step in examination is to look at the throat. If any suspicion of exudation is present an injection of antitoxin should be the next move, after which a culture be taken. If a subsequent examination proves the case to be one of diphtheria, the patient has been put in the best possible condition to combat the disease; if the bacteriological test proves that you were mistaken, no harm has been done.

One of the most important facts to bear in mind in the use of antitoxin is that the dose is to be regulated by the severity of the disease and the length of time the patient has been ill, and not by the age of the patient. There may be some exceptions to this; but it is a safe rule to follow, whether we meet with diphtheria in a child of one year or five years, that the only features to be regarded are the severity and length of the disease. Even when the age of the patient is more than five years, it will not be necessary to increase the dose of the remedy very much. Two thousand units is the smallest dose that should ever be given, and then only in very mild cases of tonsillar diphtheria, excepting in cases of children under one month old. When the disease has invaded the uvula and pharynx, as evidenced by the exudation on these parts, 3,000 to 4,000 units should be the initial injection. Should the nares also be involved, my invariable rule is to give from 4,000 to 5,000 units at my first visit. It is extremely difficult to ascertain just how much membrane there may be in the posterior nares, and, if its presence can be determined in this situation at all, it is better to give the patient the benefit of any doubt we may have as to its extent and give a large injection immediately.

In cases of diphtheritic croup, large doses, say from 4,500 to 6,000 units, should be given, and we should also be ready to intubate at a moment's notice. In intubated cases the tube can be removed in four to five days. Should stenosis recur, the latter is not due to the diphtheritic membrane, but either to granulations or spasm of the larynx. When, in addition to laryngeal diphtheria, there is an exudate in the pharynx and tonsils, one should be governed by the condition of this membrane as to the necessity of repeating the injection. If the pharyngeal exudate disappears after the first injection, it is safe to infer that the laryngeal exudate will do likewise, and a second injection will not be necessary. In all cases, whether pharyngeal or laryngeal, the injection should be repeated in from twelve to twenty-four hours, depending on the condition of the patient. In cases of mixed infection, or so-called septic cases, the initial dose is from 5,000 to 6,000 units, repeated in twenty-four hours. It is not an uncommon experience to find, in a family in which one child has diphtheria, other children who apparently are not ill, but have colds in the head. One child may have a running nose, another a mucopurulent discharge from the eyes; and a bacteriological examination will reveal the presence of the diphtheria bacilli. In these children a single injection of 2,000 units of antitoxin will produce marvelous results. As a rule, this single injection will stop the discharge without further trouble. In many cases of croupy cough (membranous croup), even cases that have been called pertussis, it will often be found that the bacilli are present, and an injection of antitoxin will stop the trouble.

It is not necessary that the injection should be made at any particular point, but there are reasons why certain parts are preferable to others.

It is not an uncommon practice to choose the muscles of the back, but it is my custom to make the gluteal region the site of injection. If the assistant places the child over one knee, face down, and with his free leg over the patient's, it is very easy to hold the child firmly, and the gluteal muscles offer a convenient place for operation; then, too, no matter how much the patient may struggle the operator need have no fear of puncturing or wounding other important parts. This cannot be said of injections over the back, chest or abdomen, as it would not be difficult if the patient struggled violently, as they sometimes do, to puncture the pleura or peritoneum. Moreover, a large injection over the chest or abdomen will cause a swelling which often disappears very slowly, whereas in the gluteal region this is not the case, especially if the needle is carried deep into the muscle.

One of the most valuable features of the antitoxin treatment of diphtheria is its use in immunization. In large families in tenement-houses, when isolation of the afflicted person is impossible, unless removed to a hospital, an injection of the remedy into those not infected will prevent the spread of the disease. In former days, when diphtheria was treated empirically, it was not an unusual occurrence to have several members of a family die of diphtheria before its course could be checked; but now such a condition is almost, if not entirely, unheard of. The reports of physicians in institutions in which children are kept, and from medical men generally, seem to fix the immunizing dose at from 150 to 300 units; but it has been the writer's uniform custom to give from 300 to 500 units in tenement- and flat-house districts where children cannot be closely watched and where isolation cannot be practised. My experience with the immunizing power of antitoxin has been quite large, embracing a series of nearly 1,800 cases in tenement-house practice. In only four of these cases was a membrane produced within from twelve to thirty days after the injection. In only one of these was the membrane which appeared thirty days afterward due to true diphtheria; one was due to follicular tonsillitis and the remaining two to streptococcus infection. Never have I seen any complications or sequelæ follow the use of antitoxin as an immunizing agent, excepting the occurrence of an urticaria-like rash, and even this does not occur in more than ten per cent. of the cases and lasts only a day or two.

Passing now from the consideration of the simple antitoxin treatment and giving attention to the question of whether it is necessary to use any other treatment in connection with it, it may be stated that this must be determined by circumstances. Antitoxin is a specific in diphtheria and when the disease is mild or in its earliest stage, the membrane thin and not covering a large surface, it is not necessary to do more than give one injection, depending on the antitoxin to cure the disease. When, however, the disease has made more progress and a putrefaction change has oc-

curred, accompanied by foul-smelling discharges, it will then be well to employ some measure to destroy the odor and to keep the parts sweet and clean. For this purpose I have employed a neutral preparation of peroxide of hydrogen, mixed with double or three times its volume of water. I have also used a saturated solution of boracic acid, or a normal salt-solution; but it is my belief that the best results are obtained with peroxide. These solutions should not be sprayed in the throat, but should be thrown in with a long-nozzled, hard-rubber syringe holding an ounce, after depressing the tongue with some force against the pharynx, so that the liquid washes not only the tonsils, but the pharynx and posterior nares as well. This should be repeated every hour or two. It is very important that these solutions should be neutral. Some of the preparations of the peroxide of hydrogen are acid and will crack the mucous membranes of the lips and mouth. This is very distressing to the patient and interferes with the ease with which these washings can be made and also with the taking of proper nourishment.

In nasal diphtheria the nose should be irrigated, preferably with a saturated solution of boracic acid. On the first day of the disease this irrigation, which should be done every three or four hours, without force, perhaps with a fountain syringe, is for the sole purpose of keeping the parts clean; but after the second or third day, when the membrane begins to exfoliate, an occasional more forcible injection with a ball nasal douche will often detach membrane which was perhaps only partly separated. The writer has frequently been able, in this way, to detach large masses of membrane, sometimes clearing out both nostrils and the posterior nares with one of these forcible injections. By removing these membranes it is made possible for the patient to close the mouth and breathe through the nose. Care should be taken that nothing is forced into the Eustachian tube, this is avoided by instructing the patient to keep the mouth open. When, because of the youth of the patient, this cannot be accomplished by instruction, a gag of some kind should be placed between the teeth, and the mouth kept open during the douching. But should the liquid be forced into the Eustachian tube, which is not likely to occur as the swollen mucous membrane will tend to prevent it, even this would be preferable to having the foul, putrefying mass retained and the patient poisoned thereby, besides polluting the atmosphere and making the danger of infection greater to the attendants and other members of the family.

This is all that need be done in the way of local treatment; the administration of astringent or cauterizing agents cannot be too strongly condemned. The internal treatment is very simple and consists in the administration of strychnine in essence of pepsin, or some other vehicle. This is given simply as a cardiac tonic and to aid digestion. The tincture of the chloride of iron and chlorate of potash are to be condemned as

they tend to derange the stomach and cannot in any way be productive of anything but harm. Alcoholic stimulants are indicated in only very severe cases.

The after-treatment consists in administering remedies directed toward hastening convalescence—such as tonics, preferably syrup of the iodide of iron.

The feeding is most important, and as the appetite is generally not good, I have come to believe that the best results can be accomplished by catering to the patient's fancy. Frequently the proper nutrition has been afforded by feeding a child on ice cream. Whatever beef extracts, liquid peptonoids, milk, or other foods are used, what is desired is to sustain by proper nutrition, until such time as the disease ends and the normal appetite returns. To accomplish this purpose every practitioner of experience will have his own methods.

In feeding intubated cases, as the toxemia is not apt to be so great, either because the membrane is not so extensive or the larynx does not absorb the poison rapidly, it is my custom to give internally nothing but water for twenty-four hours. This is done because of the danger of occluding the tube with particles of food or curds of milk; besides which the mouth is kept cleaner. After twenty-four hours, when the child has become more accustomed to the tube, ice cream, canned condensed milk, and thick gruels are given. One must use his own judgment in the matter of feeding. Some children are averse to taking nourishment of any kind, but, if patient search is made, some one thing will be found that the child will take with pleasure. I recall more than one case in which, after intubation, children have lived for several days on beer, taking it with avidity and rejecting everything else. I do not especially recommend beer as an article of diet for children with diphtheria, but simply mention this, to show how sometimes the unthought-of thing will serve the purpose in an emergency. When children refuse everything, feeding through the nose is preferable to rectal alimentation.

I have said nothing about calomel sublimation and other methods often employed as accessories, because I do not believe in them. Calomel sublimation, especially, I think cannot be too strongly condemned. I believe it irritates the mucous membrane and renders the patient more liable to complications, such as bronchitis and pneumonia, besides being productive of salivation in the nurses and discomfort generally. Steam inhalations to be effective require that the atmosphere should be saturated with moisture. This necessitates the closing of windows and doors, raises the temperature of the room, and prevents the free supply of oxygen, which it is necessary to have in order to secure good results.

Membranous croup is almost always diphtheria, and after intubation should be treated as such. Patients with croup are often found in whom there is no membrane at all in the pharynx,

and a culture does not reveal the true bacilli. But if intubation is practised and a culture taken from the first expectoration after the tube is in place, the Klebs-Loeffler bacillus will invariably be found. This is a fact to which I have never seen an exception.

The character of the disease is altered when diphtheria is complicated with other affections, as scarlet fever, measles, whooping-cough, etc. It is my invariable custom, when any of these latter affections show membrane, to inject from 2,000 to 2,500 units of antitoxin at once, before taking a culture. Indeed, there are many physicians who invariably employ antitoxin in their scarlet-fever cases, some even going so far as to say that it affects the course of the disease favorably.

Whether this is so or not, and it has never been authoritatively stated that such is the case, one thing is certain, namely, if antitoxin is used in these cases from the beginning and an antiseptic or neutral solution of hydrogen peroxide used in the throat, one will never have diphtheria complicating scarlet fever; and, further, if the antitoxin does not affect the fever favorably, it is safe to say, and say positively, that it will not affect it unfavorably.

Another dreaded complication, and one which not infrequently carries off patients after intubation, is bronchopneumonia. Some believe that this is traumatic and is due to particles of food passing through the tube, or even to the irritation of the tube itself. Be this as it may, I believe that this condition can sometimes be prevented, if nothing but water is given during the first twenty-four hours. I believe, also, that careful examination of the patient will often find the right heart weak and overdistended with venous blood.

By careful stimulation of the heart by means of aromatic spirits of ammonia, strychnine and nitroglycerin, and by careful reduction of the temperature by cold sponging, and not by means of the various coal-tar preparations, bronchopneumonia can often be prevented and a favorable termination of the disease brought about, without further medication.

The sequelæ most commonly met with in diphtheria treated with antitoxin are a rash and occasionally joint pains. The treatment of the rash is symptomatic—relieve the itching, when the rash is in the form of urticaria, by cold sponging with alcohol and water. This will also reduce co-existing elevation of temperature. The joint pains are treated by rest in bed and administration of the salicylates.

I should like to say a few words, while on this subject, about the probable cause of the rash which sometimes follows the injection of antitoxin and which so often resembles urticaria. Tilbury Fox gives as one of the causes of urticaria "the circulation of acrid effete products in the blood." It may be supposed that a child with diphtheria has a certain amount of excrementitious matter in the blood, which the kidneys, the

lungs and the skin will eliminate in the ordinary course of events; indeed, it is not necessary to suppose the child to have diphtheria or any other disease, as these excrementitious matters are being eliminated all the time, and continue naturally up to a certain point.

But it is well known that there is a limit to the excreting power of these organs, and when the blood is overcharged with these effete products an explosion must take place somewhere and, as the skin is the greatest of the excreting organs, it is apt to occur there. Some people get urticaria after eating certain articles of food, because the skin is being called upon to excrete more than it is able to do with ease. Supposing that into the blood, already charged with these effete products, a certain amount of horse-serum, also charged with the hippuric acid and other excrementitious products of the horse, is injected, the consequence will be that the human blood becomes overcharged with this excess of effete matter, and the kidneys and lungs, being incapable of eliminating more than a certain amount, the skin is called upon to dispose of the rest. It does it, but at the same time presents this condition of urticaria. This being the case, it has occurred to me that if the excrementitious salts held in solution in this horse-serum could be eliminated, the occurrence of the rash might be prevented.

I believe this could be accomplished by the process called dialysis, the only question being, Would the antitoxin in the serum be sufficiently soluble to be separated also? I make this suggestion for what it is worth, and leave it to the chemist and physicist to determine what its value may be.

In conclusion let me say (1) that antitoxin is a positive cure for diphtheria, when employed in sufficient quantity and sufficiently early in the disease; (2) that even when employed too late in the disease to produce its specific action, it cannot under any circumstances be productive of harm; (3) that when used before the invasion of diphtheria, antitoxin possesses a positive immunizing power which lasts about thirty days.

A good deal has been said and written about the failures of antitoxin, but in none of these cases has it ever been stated what quantity of antitoxin was employed, how early it was given in the disease, what complications existed before using, or how other medication as, for example, large doses of bichloride of mercury, may have contributed to the unfortunate ending. There is antitoxin which is not of standard strength and has little or no antitoxic value—it may be too old, or it may have been obtained from a sick horse—but if the practitioner of New York will use the antitoxin prepared by the New York Health Department, which is always as it is represented to be and always at his command, and use it fearlessly and invariably in all cases of diphtheria, *whether mild or severe*, he will get good results and have no occasion to regret its use.

336 East Eighty-fourth Street.

PROBLEMS IN THE ETIOLOGY, DIAGNOSIS AND TREATMENT OF TUBERCULOUS DISEASE OF THE UPPER AIR-PASSAGES.*

By JONATHAN WRIGHT, M.D.,

OF BROOKLYN, N. Y.

FROM the earliest times to the present the idea has always existed, and it has occasionally been the accepted doctrine, that consumption is infectious. The historian from whom I quote¹ adds the remark, "Undoubtedly a susceptibility is always associated with it." This perhaps is as good a synopsis of a modern thesis on the etiology of tuberculosis as can be given in a few words. It is with the details of the question we are at present concerned. The question of the etiology of tuberculosis in general does not enter the province assigned to me in this discussion. I have many times protested against the tendency to consider the tubercle bacillus as the sole agent in the production of tuberculosis. This tendency has arisen from the fact that it has been convenient to classify disease, in the last few decades, on the basis of etiology, rather than on that of pathology or on the still earlier basis of symptomatology, but, after all, the etiology and pathology of one generation is apt to become the pathology and symptomatology of the next. This tendency is still more due to the fact that the tubercle bacillus is the tangible factor while the others, although quite as important are as yet imperfectly apprehended. The problem which now confronts us in the study of the causes of tuberculosis is the necessity for finding a method, perhaps in organic chemistry, by which we may investigate those factors which render the morbid influence of the tubercle bacillus an efficient one in the production of disease in the animal economy of its host. The discussion of this also lies beyond the limits assigned to me, though these factors enter quite as largely into the real etiology of the local disease as does its bacillus.

It is unnecessary for me to remind you how frequently the presence of the tubercle bacillus has been demonstrated not only on the surface of mucous membranes, especially of the upper air tract, but in the internal organs and the lymphatic system of man, without the production of that congeries of lesions and symptoms which we indicate by the term tuberculosis.

In examining microscopically more than a hundred specimens I have failed to find either the tubercle or the tubercle bacillus in ordinary hypertrophy of the lymphoid material of the throat. While I unhesitatingly deny that the tubercle bacilli are ever the cause of large tonsils and adenoids, it is not alone on account of this failure to find them on my part that I am disposed to doubt that this overgrowth of tissue is the chief pathway by which the tubercle bacillus enters the organism. Others have found them. From a total sum of nearly a thousand specimens of tonsils and adenoids examined the ratio of 5 per cent. has been

deduced² as the proportion of latent tuberculosis in them. I have elsewhere³ entered fully into the reasons why I am disposed to doubt the reliability of these statistics, and the repetition of them here is unnecessary. However, in the face of all this conscientious work by many observers, it is impossible to deny that hypertrophied lymphoid tissue may absorb from its surface the tubercle bacillus deposited there by the passing air-current and the food. Furthermore, although the experiments of Hodenpyl⁴ led to a contrary inference, the more recent investigations of Goodale⁵ and Hendelsohn⁶, I think, have set at rest the question as to the power of the lymphoid tissue to take within itself inorganic particles placed on its surface. It does not seem any possible violation of close scientific reasoning to venture the belief that they may act in the same way toward the tubercle bacillus. While I believe the ratio of 5 per cent. too high for the occurrence of the so-called latent tuberculosis, I am not at all disposed to doubt the occurrence of latent tuberculosis of the tonsils in a smaller and as yet undetermined ratio. But if we have very numerous researches upon which to form an opinion as to the part played by the abnormal hypertrophy of the surface lymphoid tissue, singular to say we have nothing to base our opinion upon as to the part played by the surrounding normal mucous membranes of the nose and throat. Since their chief function is absorption and transmission, one would suppose that the healthy lymphoid tissue would act more promptly and thoroughly than the diseased structures upon which these observations have been made. Or are we to suppose that tonsils and adenoids have a greater absorbing power than do the normal elements in the mucosa from which they spring?

I think we have good reason for the belief that the tubercle bacillus usually enters the tissues of man before it reaches the stomach by the esophagus or the lungs by the trachea. Many no doubt reach the stomach, but the destructive power of the gastric secretions on the germs in the food is apparently very marked for pathogenic bacteria. We must assume at present that the tubercle bacillus passes into the lymphatics through the mucous membranes of the naso- and oropharynx in a very large proportion of the cases of pulmonary infection. To deny other ports of entry would be dogmatic and is unnecessary. We have no means of venturing an accurate assertion as to the relative frequency of travel along the various possible pathways of primary infection. I think there can be no doubt that the bacillus can pass directly, either by intra- or intercellular channels through the surface epithelium of the mucous membranes, and without a solution of continuity in the stockade of columnar epithelial cells. In at least one case of tuberculous laryngitis I have had an opportunity of observing this, as a plate in a former contribution⁷ clearly shows. I do not believe that a previous infection by pyogenic cocci is a necessary step in the process, as Lake has intimated⁸. Galen in his time pointed out very clearly⁹ that the nose and upper air-passages have

*A contribution to the Symposium on Tuberculosis, held by the New York State Medical Association at its seventeenth annual meeting, New York, October 17, 1900.

for their function not only the warming of the inspired air on its way to the lungs, but of filtering out of dust-particles. It has since been demonstrated¹⁰ that they act in like manner toward bacteria. Indeed, *a priori*, the waving cilia of the epithelium and the residual pulmonary air are anatomical phenomena which constrain us to believe that the bacillus of pulmonary tubercle and the dust of pulmonary anthracosis do not reach the periphery of the respiratory system of the lungs by the air-channels themselves. They must be carried thither by other agencies. We know of none except the blood-current and the lymph-stream. We find them in the lymph-channels and we have many reasons for believing they are thus carried, but the difficulty of submitting the blood-current and its channels to microscopic examination in this respect, the absence of any such blood-filters as the lymph has in its nodes, preclude us from denying or asserting that the blood-vessels also carry the germs from the surface. But perhaps this is not a very important point in the consideration of the subject. The lymph-channels do carry material absorbed from the surface whether the blood-vessels are also carriers or not. The interesting, and I venture to predict significant, phenomenon connected with the subject of infection is that apparently the mucous membranes absorb, the lymphoid material harbors, and the lymph-channels carry the tubercle bacillus and yet are themselves relatively immune to its morbid influences as compared to the walls of the bronchioles and air-vesicles. We must remember, however, that this is not so much the case with the cervical and bronchial glands, though many observers believe that they are as a rule only secondary points of development, the primary nidus being in the lungs; but the mucous membranes of the upper air-passages not only receive the primary deposit of the infecting agent, but they are subsequently, in case of the establishment of a pulmonary nidus, washed by the virulent cultures thrown off from the distant point of development, without themselves, as I have just said, in the majority of cases, presenting evidences of morbid action.*

Now, if in the air-tract we try to arrange the anatomical localities in the order of the frequency of development of tuberculous disease, we find it proceeds pretty regularly from the walls of the bronchioles and air-vesicles to the nose, the larynx perhaps being more frequently involved than the

trachea or larger bronchi on account of its greater mobility and the complexity of its gross anatomy.¹

The lungs, the larynx, the oro- and nasopharynx, the nose, this being the order of frequency of the site of tuberculous disease, and, in all but an insignificant number, the lungs being the primary seat of the efflorescence of the disease and the other localities merely incidents in the total history, when it occurs to us that this is the inverse order of frequency in the primary contact of the tubercle bacillus in the air-current, there seems no escaping the conclusion that the tissues themselves possess powers of resistance in certain localities which they do not have in others. Now, what does this possibly mean? We must keep in mind what the bacteriologists teach us as to the enormous variations in the virulence of the bacillus itself. We must remember the individual as well as the generic variation of both bacteria and their hosts in the general scheme of the bacterial etiology of disease. I am not here concerned with the bacillus nor with its relation to general systemic processes in disease, but with the phenomena of its relation to the nose and throat. The same phenomena are to be observed elsewhere. It adds nothing to our actual knowledge to theorize, but it adds greatly to the efficiency of our intelligence to do so, and it is an immense help to us in subsequent investigations and experiments. Shall we say that the tubercle bacillus only acquires virulence as to its host in its passage from the throat along the pathways of infection to its point of development? This seems fantastic. Shall we imagine that its greater frequency upon or adjacent to the mucous surfaces of the nose and throat has induced a sort of local inoculative immunity? Or shall we say that this greater exposure has in the process of evolution of the animal organism produced a graded local immunity which is inherited? Then comes the familiar, but the uncomfortable thought, does not evolution partly mean the weeding out of susceptible strains generally, by exposing them to the ravages of disease? And if our somewhat arrogant hygienists really succeed in decreasing the number of exposures by their onslaughts on the bacillus, will not the susceptible strain in the human race increase and the net result be the same, unless the bacillus is totally annihilated? It is thus easily seen how quickly and necessarily one drifts out of special channels into broader, if one but follows one's argument to its inevitable conclusion of interrogation.

I am very anxious that the etiological problem

*In the early statistics of Louis (*Recherches Anatomo-Pathologique sur la Phtisie*, 1825), out of 102 cases in which the air-tube was examined postmortem in deaths from phthisis, the epiglottis was involved 18, the larynx 22, and the trachea 31 times, but he does not state distinctly the relation of the involvement of any or all parts of the tube to the whole number of pulmonary cases. His statistics are moreover vitiated for use to-day by the non-exclusion of syphilitic and other ulcers of the air-tube, and the same may be said of Trousseau and Belloc's treatise on laryngeal phthisis in 1837. Heinze is the only author of modern date who goes as high as 51 per cent. It must be remembered that all these and many other statistics are from the autopsy-table in cases of pulmonary phthisis, and include the ravages of the last stage of the disease in which not infrequently the whole air-tube suddenly breaks down into ulceration. At an earlier period the proportion is much less. Out of 25 patients I examined in the second and third stages of pulmonary phthisis, I found involvement of the upper air-passages in only 4, or about 16 per cent., which corresponds fairly well with the laryngoscopic examinations of other observers.

¹I wish to explain that I am not now considering latent tuberculosis of the tonsils and lymph-nodes, which, if it is to be called a disease at all, is to be considered a disease thoroughly repressed by the resisting forces of nature, and therefore as contributing to the striking phenomena to which I am alluding. Clinical tuberculosis is one revealed by the symptoms and not exclusively by the microscopic study of the tissues. I should also say that Trousseau and Belloc long ago stated that the trachea was more frequently affected than the larynx, but Andral about the same time made a contrary observation (*Clinique Medicale*, 1834, T. 4, p. 182) and I do not now recall any observations of late years which throws any more light on this particular point, for the advent of laryngoscopy by revealing the laryngeal lesion clearly and the tracheal lesion obscurely, or not at all, has confused rather than elucidated this point, and is especially open to error from a clinical standpoint because the symptoms in tracheal ulceration are comparatively mild and apt to escape notice in the presence of other lesions.

with which I have been concerned should be stated not in its usual form, "What is the cause of laryngeal tuberculosis?" but rather what is the cause of the comparative immunity of the upper air-passages? We should always be reminded of this when the fact is brought to our attention that primary disease of the upper air-passages is so rare that its very occurrence has been doubted. So far as the bacillus is concerned, he seems to be powerless until he has been baptized in the lungs and born again, or until he has there on his vantage-ground sapped the forces of general systemic resistance. I hope I have been able to present this phenomenon in its proper vivid light, as a puzzling problem of vital importance.

I see upon referring to the program that I am expected to say something of the pathology, but it seems to me I may safely neglect this, at least so far as concerns its histology. The pathology of tubercle in its microscopic features is the same everywhere and it has often been said that Virchow many years ago selected the larynx as the place where the common type of the lesion can best be studied. Although Trousseau and Belloc failed to note tubercle in the larynx in their cases of ulceration with pulmonary phthisis, considering the ulceration of a simple inflammatory nature, Broussais as early as 1806 had observed it.¹¹ Since the development of laryngoscopy the gross pathology is better considered under the heading of diagnosis.

In the consideration of the remaining part of my subject which I shall have time to touch upon, I shall confine myself exclusively to that lesion which is at once the most common in occurrence, the most distressing to witness, and the most difficult to treat, namely, laryngeal tuberculosis.

In speaking of the diagnosis there are three points upon which I wish to dwell with especial emphasis, (1) the diagnosis of incipient laryngeal tuberculosis; (2) the differential diagnosis of tuberculous from syphilitic laryngitis, and these include the (3) salient point, namely, the microscopic examination of the sputum.

1. When the laryngologist is aware that his patient is suffering from pulmonary phthisis and has come to him for hoarseness, he is naturally on the alert for the detection of the involvement of the larynx in the disease. He is still more so if the patient also complains of pain. Upon looking into the larynx and finding it much reddened, but without any local hyperplasia or infiltration, he may be pretty confident that the laryngeal symptoms and appearances are dependent upon the cough and perhaps upon the general systemic debility. This frequently, even postmortem, deceived the early observers. The phthisical patient may come with much less-marked symptoms than in this secondary catarrhal laryngitis, and yet have in his larynx the unmistakable evidence of tuberculous disease in its incipency. Inspection reveals in addition to the pale larynx and velum palati, so suggestive of pulmonary phthisis, one which is congested only in spots. There is a heaping-up of proliferated epithelium on the posterior wall, the pachydermia

laryngis. But these are appearances which are merely suggestive, not confirmatory of tuberculous laryngitis. We must have some local infiltration or ulceration to render this suggestiveness a probability, a certainty it cannot become until we have excluded syphilis and found the bacillus of tubercle.

The description of the laryngoscopic appearances of tuberculous infiltration and ulceration of the larynx can best be left to the text-books and the routine descriptions, though I often question the utility of surrendering space even there to them. I doubt if any one ever made a diagnosis of a tuberculous or syphilitic ulcer from his experience with didactic descriptions alone. Neither shall I say anything of the symptomatology.

I have been supposing that the laryngoscopist was informed from the symptoms, or history, or physical examination, as to the condition of the lungs. The case is very different when there is no suspicion of pulmonary involvement. I am familiar with the eloquent and impressive phases with which many writers delineate the accuracy of diagnostic acumen possible in laryngoscopy which recognizes at a glance without collateral evidence the existence of pulmonary phthisis. I have no hesitation in disclaiming any personal skill of this kind. The cough, the emaciation, the pallor, the patient's apprehensions, and his history, put me on my guard. Laryngoscopy strengthens or weakens my suspicions, but I confess I have to go further for a diagnosis. Physical evidences of pulmonary involvement with the laryngoscopic evidence will form a probable diagnosis, but the presence of the tubercle bacillus must confirm it. Before proceeding further in the question of differential diagnosis we must consider the second point of interest.

2. Syphilis of the larynx is not a common occurrence in my experience, syphilis of the lungs is not unknown to it. When the two are combined they present a clinical picture which is sure to deceive the unwary diagnostician who lays too great a stress upon the element in differential diagnosis of most frequent occurrence. What makes this mistake more distressing to the conscientious practitioner is the fact that laryngeal syphilis is usually an easily curable disease, but with the same treatment as that used in laryngeal tuberculosis it is almost as fatal as the latter. The observers who first studied these laryngeal affections in the early part of this century were continually confounding them and they were both called laryngeal phthisis. In no other affection does such great importance attach to the diagnosis. It is usually a matter of life or death to the syphilitic patient. The comparative futility of treatment makes it of less importance to the tuberculous patient.

With a history of syphilis and scar-tissue in the pharynx or on the epiglottis, with the peculiar sharp-cut serpiginous ulceration characteristic of syphilis of the mucous membranes, the diagnosis is easily made, but local appearances in syphilitic disease, while frequently different from other forms of ulceration and we thus speak of characteristic

conditions, may so exactly resemble those of a tuberculous nature that they are indistinguishable from it. The promptness and suddenness with which laryngeal stenosis may supervene in syphilis is a differential diagnostic point which is frequently neglected. Tuberculous laryngitis is usually not accompanied by dangerous dyspnea. Syphilitic laryngitis usually is.

Fortunately there is usually no difficulty in clearing up the diagnosis, if the observer is on his guard. "Always think of syphilis and keep on thinking of it," irrespective of long personal acquaintance with the patient and his family, disregarding any church-going proclivities and notwithstanding his solemn asseveration. All the patients whom I have seen die from this mistake on the part of their medical attendants and one who was saved by previous experiences, were innocent women, who so far as could be learned from the history, had apparently unknowingly acquired the disease.

3. The greatest practical benefit which is at present clearly demonstrable we have derived from the discovery of Koch is the diagnostic value of the tubercle bacillus. In incipient cases of pulmonary involvement the bacillus is frequently absent from the sputum or there is no sputum as we all know; but where there is a laryngeal lesion resembling syphilis the primary pulmonary lesion has usually advanced so far that it is very exceptional, indeed, to be unable, on careful repeated examination, to find the tubercle bacillus.

Therefore in these cases of laryngeal disease it is of the utmost importance, both in the incipient stage and in the ulcerative stage when there is danger of confounding it with syphilis, that the sputum analysis should not be neglected. If the bacillus is not found iodide of potash and mercury should be given until the case is cured or the diagnosis is clear. I have many times urged caution in this regard and I do not hesitate here to reiterate a warning which may occasionally save a life.

Treatment of tuberculosis of the larynx, still more even than treatment of pulmonary tuberculosis, is a most vivid reminder of the impotency of man in the face of the destructive forces of Nature. Our helplessness lays us open to the bitter satire of that gifted ancient charlatan, Aesclepiades, who pronounced the therapeutics of Hippocrates to be the contemplation of death. It is doubtless true that occasionally a patient recovers under various methods of treatment. They also recover in exceptional instances without local treatment. There is a retrogression of the tuberculous infiltration and a cicatrization of its ulcers. This occurs under the local application of many medicinal agents, lactic acid and creosote being the most frequently employed in the last decade, iodoform and various balsams being perhaps as frequently used during the preceding ten years. Quite as extravagant and enthusiastic claims have been urged for one drug as another. So far as the impartial observer may judge the results have been approximately the same. I am under the im-

pression that in laryngeal, as in pulmonary tuberculosis, climatic change is the most effective agent in the cure of the disease. Unfortunately such a very large proportion of these cases are inevitably doomed that it is cruelty to send them away from home to die, while in quite as large a number of cases climatic change for financial reasons is impracticable. It is not a part of the subject allotted to me to enter into the discussion of climate in the treatment of phthisis. Suffice it to say that the ideal treatment of laryngeal phthisis would be one in which the local measures could be judiciously and skilfully carried out during the continuance of climatic treatment.

A few words must be said as to the surgical treatment of tuberculous infiltrations of the larynx, a procedure so popular with our German confreres. Again when we come to consider the results as to cure it is only a repetition of what has been said as to the application of drugs. A certain very small number recover under treatment. Whether more recover under this plan than under other methods or without treatment is a question which has never been satisfactorily answered, though frequently asked. Even the most enthusiastic advocates of the method admit that a large majority of the cases seen are unsuitable for operative treatment. From what I have said it will be clear that I am of the opinion that after an exhaustive search of the statistics, after an impartial weighing of the statements of numerous writers, after an extended clinical experience, the unbiased observer will come to the conclusion from the evidence thus studied, and not from that of a few selected cases, that the permanent radical cure of the local lesion of tuberculous laryngitis is not materially hastened by the various methods of treatment in any but an insignificant number of cases.

Now, I have been speaking of that part of the treatment of tuberculous laryngitis which is expected to end in its cure, and by that I mean the permanent cicatrization of the ulcers and the complete disappearance of infiltration from the larynx. When we discuss the palliation of the dreadful symptoms, we are dealing with another matter. Indeed, it not infrequently happens in tuberculous disease, and is characteristic of lupus for partial cicatrization of the ulcers or partial absorption of the infiltration to occur at one place and more extensive involvement to begin at another point and possibly in a locality where it cannot be seen, as in the ventricles, or where it ceases to produce pain, as below the cords or deep in the tissues. We therefore very much more frequently witness partial or temporary healing and even apparent cure than complete and convincing eradication of the disease. With this incomplete cure is a marked cessation of the distressing symptoms and a consequent increase in the euphemistic and hopeful mood of the patient. This brings me at once to one of the most important elements in the palliative treatment of the disease, the psychical one. It has always been recognized as a peculiarity, indeed, we may say as a symptom of phthisis, that the patient

is possessed, to the point almost of obsession, of belief in his continued improvement and ultimate recovery. No intelligence is too profound, no physical condition is too desperate, for the entertainment of this delusion, or of this assurance—a striking refutation of the influence of mind over disease and a striking illustration of a less mysterious phenomenon, the influence of disease on the mind. Now, it is the height of folly and it is the depth of cruelty to declare to this patient that nothing can be done for the cure of his laryngeal condition. It will bring about a depression, temporary, it is true, but productive of a marked injurious influence upon his general condition. In most cases we may evade technical falsehood by virtual deception, telling the patient much can be done in the way of treatment which may relieve his sufferings. Often he will not press his physician for more, for he, as Petrarch said in one of his Latin letters, “clings to every glimmer of hope and soothing the anguish of his soul with treacherous supports, he forgets the most familiar of his own experiences.” Any active local treatment, if it does not really aggravate the patients suffering, is pretty sure to produce grateful expressions of a belief in its efficacy and a lively hope of a successful issue. It is a fact that lactic acid and probably some other drugs will stimulate torpid granulations to a more florid and healthy appearance, frequently cause a marked diminution in the amount of secretion, more rarely bring about a decrease in the inflammatory swelling of the tissues, and even occasionally produce an evident cicatrization at the edge of the ulcers. I can testify from my own experience that even complete healing of a tuberculous ulcer may thus occur. More than ten years ago such a laryngeal condition healed in this way for several months while the patient was pregnant, but subsequently, I think after more than a year, the laryngeal trouble recurred with stenosis and in spite of an intubation which relieved the latter symptom, she rapidly succumbed to her pulmonary lesion. This, however, is with me an almost unique experience and I regarded the case at the time as cured. I cannot doubt as I look back on it now that for some reason, perhaps from the curetting which was also done, or possibly from systemic reasons, the tuberculous disease subsided and was held in abeyance. Less striking results than this are not infrequently attained and any diminution in the intensity of the morbid process causes marked amelioration of the distressing symptoms when aided by the psychological element just alluded to. Even when no apparent change in the lesion can be noted, the assurances of the patient are for a time often very gratifying if not, to the experienced observer, encouraging. The local application of iodoform, and especially of orthoform in the elegant prescription employed by Freudenthal, produces frequently a more marked influence by its continuous use upon the pain, but it has seemed to me that it has not so frequently produced a better local condition of the laryngeal ulceration. The intralaryngeal or intratracheal injection of oils impregnated with

various volatile substances, especially menthol, frequently, for the time at least, ameliorate the pain and the cough. As for the opiates internally, their employment is often justifiable and indicated. The local application of cocaine is rarely of any value, as it does not exert much influence on inflamed tissue. Detergent sprays wash away the secretions and give relief until the latter gather again, the impression on the patient's mind being often more lasting.

Finally, in a patient without much fever, with considerable vital force yet remaining, with proper fortitude of mind, but especially with the docility which seems more common in the Teuton than in the American, the removal by cutting forceps and curette of granulations and infiltrated tissue, especially the surface vegetations covering ulcers and the infiltrated substance of the epiglottis, is often followed by the most happy results as to the relief from the tormenting dysphagia, and less frequently by cicatrization of the wound. The submucous injection of various medicaments, especially creosote and lactic acid, does not appeal to my understanding of pathological processes, but it has its advocates in the larynx as well as in the joints, who are just as positive and enthusiastic and as honest as the partisans of other procedures. Indeed, as to the cure of laryngeal tuberculosis by agencies at our disposal in the present stage of our knowledge, honest belief as to that seems to be largely a matter of individual temperament, but being a debatable field it affords an opportunity for much dishonest expression of sentiment which deserves only our contempt. Even the perfectly honest, but unduly exaggerated expression of opinion as to the results to be attained by any method of treatment and the uncritical narration of the histories of only favorable cases has been very misleading. This temperamental optimism, together with the barefaced charlatanism which suppresses what the reporter knows to be the whole truth, has unfortunately been a great detriment to the conscientious study of the treatment of this terrible disease. One cannot expect human nature will allow men to be constantly exhibiting to the world their own dismal failures as an offset to the reported brilliant successes of others. Yet it is only by the unflinching and conscientious adherence to what one believes to be the whole truth that we will stimulate that activity which may in the future find that cure for tuberculosis in man which we do not now possess.

BIBLIOGRAPHY.

- ¹Baas. History of Medicine (translated).
- ²Lewin. Archiv f. Laryng. Band IX., Heft 3.
- ³Wright. N. Y. Medical Journal, April 7, 1900.
- ⁴Hödenpyl. Amer. Jour. Med. Sciences, March, 1891.
- ⁵Goodale. Archiv f. Laryngologie, Bd. VII., p. 90.
- ⁶Hendelsohn. Ibid., Bd. VIII., p. 476.
- ⁷Wright. Tuberculous Infection of the Lymphoid Tissue in the Pharynx, with Some Remarks on Laryngeal Infection, N. Y. Medical Journal, Sept. 26, 1898.
- ⁸Lake. Amer. Jour. Med. Science, April, 1895.
- ⁹Galen. De Usu Partium, XI., II.
- ¹⁰Wright. Nasal Bacteria in Health, N. Y. Med. Jour., July 27, 1899.
- ¹¹Broussais. Historie des Phlegmasies, 1816, Tome I., p. 370.

NOTES ON THE INTERESTING CASES OF A MONTH'S DISPENSARY PRACTICE.¹

By WILLIAM L. STOWELL, M.D.,
NEW YORK.

THE object of a paper read before our Society I understand to be to present original observations and research or to promote discussion. Only the latter object can be served by these cases from the Demilt Dispensary, for they have no relation to each other, nor are they rare diseases.

Peripheral Neuritis.—Maggie B., aged thirty-one years, was a large-framed married woman, very obese. She came from the country a healthy young woman. Here she began the use of beer and liquors which increased her weight, but she lost in energy of mind and body. Four months ago she had so much pain in the limbs that she took to her bed. There was great weakness when walking, so that she had to be supported from both sides. The cutaneous reflexes were preserved, but seemed slow. The wrist-drop and foot-drop were incomplete. The appetite was poor and digestion imperfect. There was marked constipation most of the time.

Neuritis is classified as localized, multiple, acute polyneuritis, recurring and alcoholic. All these forms were readily eliminated except the last. The treatment ordered was iron, quinine, and strychnine, and no alcohol. Later she went to the hospital where she could have electricity and massage.

Universal Eczema.—Ellen St. J., married, forty-two years of age. For some weeks there had been an ulcer an inch in diameter on the right ankle. As it itched she bathed it freely with alum solution. After a vigorous bathing one night she found the itching extending up the leg and thigh. It later involved both legs and extended to the genitals and trunk. Next the face and neck were affected and, finally, the arms. The ears, eyes—in fact, all the face—were greatly swollen, red, moist and bullous. At this time she was treated for erysipelas. She came under my care as the face began to improve. Desquamation commenced in flakes, as it did over the body and limbs.

Treatment consisted of solution aluminium acetate externally, with rhubarb internally. The patient had menstruated irregularly for a few months, but was in as good general health as women usually are at the menopause. The diagnosis was not exactly certain. The first physician declared the disease erysipelas and gave up the case as he claimed he could not attend it and confinements. The tumefaction of the lips, eyes and ears may also be prominent in dermatitis exfoliativa. Itching is marked in both. The rapidity of extension and fine, bran-like scales tend to strengthen the diagnosis of dermatitis. The case was entirely cured in six weeks.

Pneumonia.—Frank B., aged four years, had a catarrhal pneumonia with a temperature reaching 104° F. The usual temperature in bronchopneumonia I find lower than that in the croupous form. The case progressed well under an alkaline mix-

ture of acetate of potash and niter without antipyretics. During convalescence a malt preparation with hypophosphates was given.

The second pneumonia case was in a child of three years. Here there was a fibrinous pneumonia of the left upper lobe. This child, although "a boarder" and poorly nourished, managed to recover thoroughly. When I was in the hospital as interne every case had stimulants and an oiled silk jacket. Neither of these patients, in fact none of my pneumonia patients, have either. For a time I had oiled silk jackets made and lined with lambs' wool instead of sheet-lint or cotton. Of late, without special reason, I do not order jackets.

Alcoholic stimulants I definitely eschew because when given in considerable quantity they cause stupor and greatly interfere with digestion, in both cases masking the symptoms of the disease out of proportion to the value received. There are many physicians and many different views as to the value of alcoholic stimulants, but it is very clearly seen, upon consulting recent works on therapeutics or practice, that the majority of authors recommend alcohol "cautiously," "with judgment," "in certain cases," and the like. The day of "alcohol by the pint" has passed. Tirard says in his recent work on treatment, "but the lavish employment of stimulants as a mere matter of routine is distinctly to be deprecated."

My treatment is a very simple alkaline mixture early, and strychnine late. Children bear both strychnine and nitroglycerin well in doses of $\frac{1}{500}$ or $\frac{1}{250}$ of a grain, according to age and degree of weakness. I order an occasional dose of Dover's powder at night or phenacatin, with $\frac{1}{30}$ grain of morphine. Digitalis, strophanthus, and caffeine are much lauded and perhaps used. Tirard recommends small doses of chloral with a stimulant for restlessness. I believe that the outcry against coal-tar antipyretics is unnecessarily loud. Large doses in weak subjects do cause collapse. Likewise do aconite and veratrum viride if pushed too far or prescribed unwisely. For many years my favorite antipyretic, when one was needed, has been acetanilid in one- or two-grain doses for children and five-grain doses for adults. Suitable doses do not require alcohol to offset evil effects. Poultrices of flaxseed relieve the pain and dyspnea of the croupous cases, but cannot wisely be continued much more than two days. A mustard and flour poultice gives as much local heat and is more suitable for catarrhal cases.

Typhoid Fever.—During the past four weeks there were four typhoid patients aged eighteen, eight, five and three years, respectively. This is in proper accord with the season, since 75 per cent. of the cases occur during the last four months of the year, hence the old name "autumnal fever." These cases were typical of the disease as it occurs in youth and childhood. The eight-year-old child had a temperature of 104.5° F. at the end of a week. She presented rose spots, dry, parched skin, feeble, compressible pulse, and marked apathy. The bowels were loose, but diarrhea was not severe. Her mother was in the hospital with

¹Read before the City Hospital Alumni, October 10, 1900.

typhoid and I sent her there also, as there was no one to care for her at home. She made a good recovery.

The five- and the three-year-old children were brothers. The source of infection was not known. Each had spots and slight enlargement of the spleen. The three-year-old child had high temperature and stupor. He was bathed to reduce temperature and took no medicine except a simple cough mixture. When convalescence began he took elixir of iron, quinine and strychnine. The three-year-old child was dull and apathetic, but had no diarrhea. As he had a coated tongue and no appetite, I ordered the officinal rhubarb-and-soda mixture. In reality he took very little of it. A sample of blood from the older boy gave the Widal reaction promptly. The diagnosis was made independently of it, however.

I am still one who believes in clinical diagnosis and, though glad to have bacteriological confirmation, am not willing to have one bacteriological negative offset clinical evidences that are positive. When there was an epidemic of twenty-eight cases in the hospital the blood was always examined for Widal and generally the urine for the diazo-reaction. The reaction usually showed typhoid to be present, but the failure to substantiate the diagnosis weighed little.

The fourth patient, eight years of age, is still quite ill. She had the "characteristic semicadaverous, musty odor." During the diarrhea period she one day had about thirty stools. The spots on this patient were very few. Tympanites and stupor were both marked, the former not until the diarrhea was checked. This patient was given the antiseptic tablets of Woodbridge for two days with good result. How the $\frac{1}{1000}$ grain of podophyllin acts is a mystery. Salol and bismuth in paregoric and mucilage formed the treatment part of the time.

Milk and liquid peptonoids formed the basis of food for each of these cases. I often allow ice cream and begin early to add custard, eggs, etc., to the dietary. None of these fever patients received any whiskey. To be sure, there is alcohol in the peptonoids, but in small quantities.

The prognosis is good in childhood, but when death does occur it is from about the same causes as in adults, *i. e.*, hemorrhage, pneumonia or exhaustion. Nursing is more important than drug-giving. Exact rules should be laid down as to prophylaxis. At present in the United States 27,000 patients are lost each year—a standing army wiped out. My share in this mortality has been 2.95 percent of my cases.

Chicken Skin Grafting.—According to Bianchi and Fiorani (*Gazz. degli Osped.*, Dec. 2d, 1900) chicken skin has been successfully used for human skin grafting. They report the case of a female patient 50 years of age suffering from gangrenous erysipelas. After the termination of the erysipelas a large granulating surface was left. Fourteen grafts were taken from the skin of the breast of the chicken. Only three failed to grow.

CLINICAL MEMORANDA.

A CASE OF ADIPOSIS DOLOROSA.

By ELLICE M. ALGER, M.D.

OF NEW YORK;

LECTURER ON DERMATOLOGY IN THE NEW YORK POLYCLINIC; PROFESSOR OF DERMATOLOGY IN THE UNIVERSITY OF VERMONT.

IN 1882 Dr. F. X. Dercum, of Philadelphia, published under the title "A Subcutaneous Dystrophy Resembling Myxedema," a description of a peculiar case observed by him, and a few years later he gave the appropriate name *adiposis dolorosa* to the disease, as best describing the symptoms characteristic of it. Very few cases have been observed, and as yet but little is known about the etiology of the disease, and there is a considerable difference of opinion as to what constitute the absolutely essential symptoms and what are merely incidental to the score of cases on record. This element of doubt must be my excuse for publishing a case which, while agreeing closely with the cases on record, has many points of divergence.

The disease has thus far been found to occur always in women, generally just past middle life, and almost invariably has been associated with some neurotic or alcoholic taint. It is characterized by the development, sometimes symmetrically, sometimes irregularly, of masses of fat, which are or have been painful, either spontaneously or on pressure. Sometimes the pains are like those of a neuritis and precede by some time the appearance of the fatty mass, and the mass itself is said to be usually softer than is simple adipose tissue. It imparts to the touch a sensation like that of a varicocele. These adipose masses vary in size, but in well-developed cases exceed very much the measures of those of my patient, and sometimes appear to vary in size with the presence or absence of paroxysms of neuritic pain, although they never at any time totally disappear. A peculiarity in the distribution of this adipose tissue is that in no case thus far recorded has it occurred on the hands or feet or face.

Certain nervous phenomena have been noted by various observers, such as diminished cutaneous sensibility, extending even to local cutaneous anesthesia. There is often a complaint of great muscular weakness, and in a few instances the reaction of degeneration has been elicited. Hematemesis, epistaxis and excessive menstruation have been so commonly found that they may be considered symptoms of the disease, while other signs, such as headache, impairment of mind, bronchitis and purpura are very likely only incidental. Painful swellings along nerve trunks have been observed frequently. The skin itself is usually unchanged, is soft and pliant, but often very dry, and sometimes contains more pigment than normal.

In Dr. Dercum's original case an examination of the eye revealed contraction of the field of vision for form and for color, and some of the other senses seemed somewhat blunted. In two of his cases, in which autopsies were obtained, the most striking pathological feature was the calca-

reous infiltration and induration of the thyroid gland with changes, as yet unstudied, in the structure of the nerve-tissues. He concludes that the disease is a connective tissue dystrophy, with a fatty metamorphosis, associated with symptoms indicating a possible neuritis.

According to the same observer, the differential diagnosis lies between acromegaly, myxedema, simple obesity and *lipomatosis perimuscularis circumscripta*. The first two affect the hands, feet and face markedly, and are not painful, while adiposis dolorosa has thus far not been observed in these regions, and has pain as a prominent feature. In the last two the fat is symmetrically distributed, especially about the face and neck, while there is entire absence of pain.

My patient came to consult me about a number of painful nodules and tumors scattered over her body, and gave the following history: She is of American birth and twenty-nine years old. Her mother is living, and is very stout; her father is dead, but she does not know the cause of his death; she has two sisters, one of whom weighs over 200 pounds, and although both have been married some time, neither has been pregnant. There is nothing to indicate that the sister has adiposis dolorosa. There is no history of any hereditary disease in the family. The patient was very healthy as a child, but had measles and scarlatina; she began to menstruate at eleven years of age, and at sixteen married a man of thirty, who had several children by a previous wife, but the patient has never been pregnant. She menstruates profusely, sometimes as often as every two weeks, and has been treated for some uterine disorder, judging from her description, endometritis, with ulceration of the cervix, for which she was curetted. She now has not any symptoms indicating uterine disease excepting profuse menstruation and sterility.

The patient has a good appetite, eats heartily, is constipated, and not living very happily at home; she shows a pronounced neurasthenic tendency, and at times is probably hysterical. Eight years ago she weighed 130 pounds, and had a good figure. At that time she noticed a small lump on the inside of the left thigh, half way up from the knee. It was subcutaneous, and gradually grew larger, until at the present time it is two inches in diameter, and is very painful on pressure, but not otherwise. This swelling is superficial and rounded, is covered by normal skin, shows no signs of inflammation, and feels like a fatty tumor. During the last year similar bodies have appeared, as follows: One on the right arm over the triceps muscle, and one on the left arm, near the insertion of the biceps. There are none on the face or neck or upper part of body, but several small ones have lately appeared about the forearms. There are five or six in a chain on the outside of the right thigh, and several more on the left buttock, and one has lately made its appearance near the inner aspect of the right knee. During the past three years the patient has been getting very stout, the flesh not being distributed evenly, for it does not show on the face or forearms or lower limbs.

There are great rolls of fat about the breast and back and buttocks and upon the upper arms and thighs, but there is not any pain in these rolls unless some of the smaller fatty tumors already alluded to are present.

The patient when first seen weighed 206 pounds, and her measurements were as follows: Height, 5½ feet; a No. 6½ glove and a No. 5 shoe are worn easily; ankle, 8½ inches in circumference; calf, 14½; thigh, 27½; hips, 43½; waist, 28; bust, 42½; upper arm, 14¾; lower arm, 10; collar, 14½. The appearance of these fatty tumors, she says, is preceded for several days by an aching sensation, and at times the limbs are cold, while at other times they burn and throb. She nearly always feels tired and weak, and says her skin is at times numb; at present sensation seems normal. Her thyroid gland cannot be made out. She has a good face, not at all fat, an intelligent expression, and aside from her constant disposition to melancholy shows no decided mental peculiarity. She has a good deal of dark hair, which shows no tendency to fall, and her skin was at the beginning very smooth, soft, of a good color, and performed its functions normally. I cannot elicit any history or symptoms of syphilis, except a vague and constant pain in the bones, which, however, does not seem to be periosteal in character. With the idea of relieving this she was given dram doses of iodide of potassium three times daily by another physician, but without any effect.

Bearing in mind the fact that in the cases which have gone to autopsy, the thyroid has been found to have undergone calcareous degeneration, the patient was put on gradually-increasing doses of thyroid extract, reaching as high as thirty-five grains a day. The results were that her weight was slightly reduced, and with it some of her measurements, but treatment seemed to have absolutely no effect on the peculiar tumors, either with reference to their size or tenderness, although the patient declared that she felt much lighter and stronger. The improvement, however, was not marked enough to cause her to persevere in the treatment. Being an outdoor patient, and very irregular in her attendance, my records are very incomplete as to the condition of the urine and blood, and permission to excise portions of tumors or take photographs was repeatedly refused, and the patient finally left the clinic. Under thyroid medication the skin had become notably less soft, and showed a brownish pigmentation.

117 East Twenty-sixth street.

Placental Transmission of Tuberculosis.—This vexed question is answered by G. d'Arrigo (*Centralb. f. Bacteriologie*, Dec. 8, 1900), as follows: Inheritance can possibly take place in three ways: (1) By impregnation of ovum by bacilli containing spermatozoa; (2) by infection in an ovum which is from a tuberculous ovary; (3) by the passage of the bacillus through the placenta. He has never found the necessary conditions for the first two, but has obtained experimental proof of the last.

LIGATION OF THE INTERNAL JUGULAR VEIN FOLLOWED BY THROMBOSIS OF THE LATERAL AND SIGMOID SINUSES.

BY CHARLES G. LEVISON, M.D.,
OF SAN FRANCISCO, CAL.;

CHIEF OF SURGICAL CLINIC, UNIVERSITY OF CALIFORNIA; ASSOCIATE PROFESSOR OF SURGERY, POST-GRADUATE DEPARTMENT, UNIVERSITY OF CALIFORNIA; CONSULTING SURGEON TO THE CALIFORNIA EYE AND EAR HOSPITAL.

THIS ligation is not infrequently performed, though the subject, strange to say, has been much neglected in medical literature. Removal of malignant growths of the neck is the usual indication for the ligation of the internal jugular, which, when ligated, materially facilitates the removal of the growth. The operation here referred to is not the one that has been performed so frequently and about which so much has been written during the past few years, in connection with thrombosis of the lateral sinus in middle-ear disease. Here the jugular has been occluded by a thrombus, and is easily tied as the vessel is devoid of blood.

The ligation of the full jugular has always been considered an operation which was followed by a high mortality, this having been confirmed by the earlier statistics of Braun, who collected fifty-one cases, with a mortality of 12 per cent., all due to secondary hemorrhage. Even at this time there is a large mortality following the operation. Rohrbach has collected seventy-seven cases of ligation of the internal jugular during the removal of malignant growths of the neck, with thirteen deaths, although he claims that none of these were the direct result of the operation. In the series of ninety-one cases collected by him only one death was directly attributed to the operation. In thirteen cases of ligation for wounds of the vein reported by him there were no deaths. In all these ninety-one cases collected secondary hemorrhage did not supervene in a single case.

It is now accepted as a fact that secondary hemorrhage is due to an infection, a factor which can be practically excluded by our modern methods. This is confirmed by Rohrbach's statistics.

The internal jugular is frequently wounded during the enucleation of glands and growths of the neck, necessitating a lateral ligation or suture. Braun has collected thirteen cases of lateral ligation, with a mortality of three; these statistics clearly demonstrating that the repair of the vessel-wall is accompanied by a far greater mortality than the actual ligation, and that the lateral suture is more fatal than the lateral ligation.

The following case was recently operated on in my service at the City and County Hospital. The patient, a man aged fifty years, with no luetic history, no hereditary tendency, entered the hospital to be operated on for a tumor, the size of an infant's head, which extended above to the jaw and almost to the medium line. It was firmly fixed to the tissues beneath. The diagnosis was carcinoma. The urine contained considerable albumin and casts, but the kidneys were secreting a normal amount of urine. The arteries were atheromatous. The operation was carried out under chloroform narcosis, and the base of the tumor quickly exposed. The jugular was found involved to such

an extent that its removal was decided upon. The vein was tied one inch above the subclavian, and the distal end also ligated, about two inches of the vein, together with the growth, being removed. There was no reaction, no circulatory disturbance, no change in the size of the pupil. The patient reacted perfectly from the effect of the operation. The temperature and pulse were normal and the wound quite dry. At the end of the fifth day the patient became sleepy, slightly delirious and snoring, evacuating urine in bed. Temperature, normal; pulse 100° F.; respiration, 30 and stertorous. The pupils were moderately dilated, reacting to light. The kidneys were excreting profusely. Wound appeared normal; primary union. The diagnosis of the extension of the clot to the brain was made on account of the absence of paralytic symptoms, the gradual development of the coma (excluding uremia on account of the free flow of urine), and the stertor indicating some brain pressure. All of this subsequent to a ligation of this nature made the diagnosis probable. The patient died in coma on the sixth day.

The following is the report of the autopsy:

The wound of the neck was quite healed, the tissues presenting no evidence of suppuration or infection. The sternum and clavicle were removed and the vessels inspected in position. The peripheral end of the vein was obliterated, quite collapsed and devoid of blood, the silk ligature being intact and buried in the tissues. The distal end was found with some difficulty, as this end was deeply buried in tissues, already in full process of repair; the ligature on this end was also found intact. The distal end was distended by a firm clot. The brain was removed and the base of the skull exposed, when it was immediately recognized that the sinus on the operated side was distended with blood. Upon opening the lateral sinus down to the jugular foramen, an organized clot, continuous with the clot in the jugular, was discovered. The sinus on the opposite side and the longitudinal sinus contained only fluid venous blood. The arteries of the brain were atheromatous. There were no gross brain lesions. The kidneys presented the lesion of chronic parenchymatous nephritis. That this complication subsequent to ligation of the internal jugular is of infrequent occurrence is easily shown by reference to Rohrbach's statistics.

In this case infection was practically excluded for the thrombus was in full process of organization, as can be readily seen by the microscopic section prepared by Dr. Asch, of the City and County Hospital, to whom I here extend my sincere thanks.

The indications laid down by Rohrbach for the ligation of the internal jugular are as follows:

1. Hemorrhage due to a laceration or erosion—here the lateral ligature or suture has its place.
2. Tumors involving the vein.
3. Peradenitis due to tuberculous lymphomata closely adherent and inseparable from the vein.
4. Aneurismal varices.
5. Pyemic otitis, complicated by thrombosis of the lateral sinus.

606 Sutter Street.

MEDICAL PROGRESS.

Localization of Naming Center.—The cortical centers of several of our special senses have already been very definitely localized and by thoroughly studying clear cut cases showing, during life, the loss of some particular function of speech or hearing all the brain centers undoubtedly will soon be fully and definitely made out. G. M. HAMMOND (*Med. Rec.*, Dec. 29, 1900) reports two cases which were fully studied and the lesion localized later, but the findings do not entirely correspond with previous theories. One man was struck in the left side of head, fracturing the skull, and when he recovered consciousness had almost complete anomia, or loss of power to name objects. There was no motor aphasia, no word-blindness. On operating, a subdural hemorrhage was found along the superior temporal convolution. There was a rupture of the cortex at the junction of the middle and posterior thirds of the gyrus. One year later there was a very slight word-deafness which had been present from the first, but his anomia had entirely disappeared. The second case was one of softening of the middle third of second temporal convolution, secondary to thrombosis. There were no motor paralyzes and no disturbances in sensation. There was no motor aphasia and the special senses were normal. He was completely word-deaf, word-blind and agraphic, leading to a diagnosis of the lesion, being situated in the superior temporal and angular gyri. The author, therefore, believes that word-blindness and deafness do not always imply that the lesion is situated in the higher visual or auditory centers, but that a lesion of any part of the speech area may so disorder the complex mechanism of the associated speech centers that any form of sensory aphasia may result.

Medullary Narcosis.—A further addition to the literature of medullary narcosis is given by H. VULLIET (*Therap. Monatschft.*, Dec., 1900). In operations below Poupart's ligament, including the genital organs, the patients invariably complained of numbness and formication in the feet after 1 to 3 minutes; in 4-6 minutes anesthesia in the lower extremities had set in, and in 6-8 minutes this had reached up to a line somewhere between the umbilicus and the bimammillary space. After the lapse of $\frac{1}{4}$ hour the sensibility of arms, shoulder and thorax was much diminished. Certain interesting cases are quoted, thus in one patient the entire body became analgesic, another had lost thermic sensibility. After $1\frac{1}{2}$ -3 hours sensation to pain returned from above downward, and in not a few there was ataxia in the legs. Operations on the sexual organs seemed to be especially adapted to this form of narcosis. In hernia and appendicitis operations the method was less uniformly successful. For the neck and upper extremity it proved entirely inadequate. The usual dose employed was between 15 and 20 milligrams.

Of after-effects, nausea and vomiting rarely disturbed the patient. Many, however, complained bitterly of headache, which lasted in some cases 2 to 3 days. Collapse symptoms were never found.

Gonorrheal Endocarditis.—A case of chronic malignant endocarditis, due to the gonococcus is analyzed by G. W. McCASKEY (*Med. Rec.*, Dec. 29, 1900) showing also the findings at autopsy of a valvular lesion difficult to diagnose during life. A severe chill following self-catheterization on account of an old gonorrheal stricture brought the first notice to the case. Six weeks later the patient began to have general malaise, afternoon temperature, and progressive loss of flesh and strength. He had recovered from a severe attack of typhoid one year previously. The left ventricle was markedly hypertrophied, and a systolic and diastolic bruit were present over the second left interspace. It was also heard in the interscapular region behind. Later a severe hemiplegic attack occurred from an embolus, and numerous purpuric spots appeared before death. The aortic valves were thickened, distorted, roughened, and covered with vegetations. The mitral valves were somewhat insufficient, largely due to the dilatation of the left ventricle. The gonococcus was found upon the valves. The case seemed interesting also on account of the presence of the murmurs on the left side, due to lesions of the aortic orifice.

Suprarenal Extract in Middle Ear.—L. S. SOMERS (*Therapeutic Gazette*, Dec. 15, 1900) says that the aqueous extract of the suprarenal gland has a wide field in reducing congestion in all acute inflammations of the tympanic membrane and in all conditions of the external canal with presence of granulation tissue. It is necessary, however, to combine the solution with some antiseptic, since decomposition with subsequent septic infection is especially liable to follow in the aural canal; the addition of carbolic acid and eucaine has been found serviceable. In acute inflammation of the drum, with or without involvement of the tympanum, the instillation of from five to ten drops of the solution previously warmed will give temporary relief, and if this is repeated the affection can frequently be aborted in its early stages. Another advantage lies in the fact that, through the hemostatic action of the solution, incisions can be made without loss of blood.

Oral Sepsis.—Great stress is laid upon the importance of recognizing septic conditions of the upper part of the digestive tract by W. HUNTER (*Practitioner*, Dec., 1900), who believes that besides the local effects of gingivitis, stomatitis, necrosis, alveolar abscesses, pharyngitis, tonsillitis, etc., which are sufficient to cause much disturbance, there is a still more important influence exerted upon the stomach and the whole constitution. Dental disease is frequently the cause of indigestion in consequence of being a

gastric infection. The continuous swallowing of mouthfuls of pus organisms is not tolerated by the stomach mucosa, but besides any actual general infection there are those constitutional effects due to septic absorption, which the author believes quite common. The usual manifestations are the dirty ashen-gray look and general languor, irritability and feelings of intense depression which frequently occur without any local symptoms. Three cases of neuritis are also reported, simulating the condition which sometimes occurs in pernicious anemia, but which are given to illustrate how a toxic neuritis can be caused by the prolonged neglect of an intense condition of oral sepsis. The treatment should consist of direct application of strong antiseptic solutions to the diseased tooth or root and for a mouth wash he recommends a teaspoonful of carbolic, 1 to 20 or 1 to 40, in half a tumbler of water. All diseased stumps, roots or diseased areas must be energetically and thoroughly cleansed.

Ophthalmia Neonatorum.—As generally applied, the term ophthalmia neonatorum includes all of those cases of mucopurulent or purulent discharge from the eyes that presents itself during the first two or four weeks of the life of the child, and the general inference is that the infectious material enters the conjunctival sacs during or immediately after the birth of the child. JOHN E. WEEKS (*Amer. Gyn. and Obstet. Jour.*, Nov., 1900) says this impression should be slightly modified when one recognizes the fact that infection sometimes occurs antepartum, and that in those cases which develop later than three days after birth, the infection is almost always from a source other than the genitals of the mother; also that there may be a purulent secretion present in the conjunctival sac during the first month of life due, not to inflammation of the conjunctiva, but to an inflammation of the tear-sac dependent on an impervious lacrimal canal. The writer says that the gonococcus of Neisser is almost invariably the cause of this disease when the discharge appears before the end of the fourth day after birth. In the way of prophylaxis, a 1-1000 solution of corrosive sublimate, or a 2-per-cent. solution of nitrate of silver, instilled into each eye at the time of the first bath has given the best results. Weeks discusses the treatment of this inflammation after reviewing briefly the conditions obtaining in the eyes at this period. He describes the treatment under four headings, as follows: (1) Mechanical. The conjunctival sac should be cleansed very frequently with a 3-per-cent. solution of boric acid, or a sterile normal salt solution, or a 1-15,000 to 1-20,000 solution of corrosive sublimate. The solution should be warm or tepid. (2) The conditions for the development of the micro-organisms should be made as unfavorable as possible by reducing the temperature of the conjunctiva by cold applications, made continuously from one to four hours at a time, repeated three times daily. Pledgets of linen or

cotton moistened and laid on a cake of ice may be employed, and should be changed every one or two minutes, as soon as warm. This treatment should cease when the swelling of the lids disappears. (3) The micro-organism should be destroyed as far as possible by the application of a germicide. For this purpose nitrate of silver, 0.5 to 2 per cent., bichloride of mercury, 1-5,000, protargol, 20 to 40 per cent., formalin, 1-3,000, are the best agents. The writer prefers 1-per-cent. solution of nitrate of silver applied to the entire surface of the conjunctiva once a day until the discharge from the conjunctiva ceases. (4) Constitutional treatment, which should be directed to the general improvement of the child's condition. The writer says that ophthalmia neonatorum treated by this method seldom results in impaired vision.

Inhalations in Pulmonary Diseases.—The success he obtained in treating pneumonia by inhalations of oxygen passed through boiling water, in which had been placed one dram of a mixture of creosote, oil of turpentine and compound tincture of benzoinum, has led CLEMENT A. PENROSE (*Johns Hopkins Hospital Bull.*, Nov., 1900) to give the method a trial in other pulmonary diseases. His experience with this method in pneumonia proved definitely that (1) oxygen being heated and mixed with steam was more readily absorbed, less drying of throat and tongue, and more agreeable to the patient; (2) passed through a heated inhalation mixture like the above, it certainly had a marked antiseptic effect on the mouth and tongue, as shown by the pearance of these parts; (3) the pleasant odor of the inhalation mixture gave something tangible for the patients to breathe, who therefore made greater efforts to inhale the oxygen. Either oxygen, or compressed air, or simply steam alone, or a combination of these agents, was used in a number of cases varying from simple coryzas, various catarrhal affections of the pharynx and nasopharynx, grip, acute and chronic bronchitis, to pulmonary tuberculosis, with astonishing results. In some cases no internal medication was employed with results, when the inhalations were used early, about as good as when it was. A very few inhalations were sufficient to terminate quite severe cases of grip. The writer recommends, when a cylinder of oxygen can not be afforded, the "Benzoin Inhaler" or the "Hynson and Westcott Inhaler." At the start he uses the following formula: R Creosote (Beechwood), Olei Terebinthinae, aa drams 4, Tr. Benzoini Co., ounces 3. Of this mixture one dram is placed in a pint of hot water. As the patient becomes accustomed to the fumes, more and more of the creosote and oil of turpentine is gradually added until the mixture consists of equal parts of the three ingredients. The inhalations, to be effective, should be systematic and of from ten to fifteen minutes' duration each. The above inhalation mixture should be combined with steam alone, with steam and oxygen, or with steam at home and

with steam and oxygen at the office. The writer reports in detail three cases illustrating the beneficial results of regular inhalations of each of the above combinations.

Hyperidrosis of Axilla.—After testing various local and constitutional treatment for the above distressing skin lesion, L. KOLIPINSKI (N. Y. *Med. Jour.*, Dec. 29, 1900) has made use of a rather radical, but apparently successful method of dealing with this condition. The idea is to convert patches of skin with their hypersecreting glands into scar tissue and with this end in view he shaves and sterilizes the axilla and, without any anesthetic, thoroughly uses the thermocautery, turning one-half or more of the superficies of the axilla into burns of the second and third degrees. It is said that the pain is not severe. A dry bismuth or zinc-oxide dressing is applied and the patient is able to resume his work in a few days.

Bronchopneumonia in Infants.—A recent paper by ROSENTHAL (*Thèse de Paris*, 1900) contains some interesting conclusions based on a study of 23 cases of bronchopneumonia in infants. They are as follows: Bronchopneumonia results from descending respiratory infections by non-specific bacteria, pathogenic or accidentally pathogenic ones. The infection is extremely contagious in infants. Out of 19 cases of infantile bronchopneumonia, 15 were induced by Pfeiffer's bacillus, pure in 2 cases (1 benign, 1 fatal), associated in the other 13 cases with either the pneumococcus, streptococcus, diplostreptococcus, and enterococcus. In several cases the author found the enterococcus of Thiercelin (bronchopneumonia of intestinal origin). Rosenthal agrees with Marfan that the cachexia of sucklings is primarily gastro-intestinal in origin, later becoming pulmonary in character. The terminal bronchopneumonia progresses in an insidious fashion, the fatal ending occurs when the intestinal symptoms have disappeared. Fever is very slight, and the dyspnea scarcely appreciable.

Hypertrophy of the Thymus in Leucemia.—A contribution to the interesting and unusual feature of leucemia has recently been made by MOIZARD and ULMANN (*Archives des Médecine des Enfants*, Dec., 1900). A review of the literature of leucemia shows that hypertrophy of the thymus is barely mentioned as a complication or accompaniment of the disease. The first report of this condition dates back to 1871 when Cnyrim described before the Congress of Medicine held at Frankfort that year the occurrence of an enormously hypertrophied thymus in a child, five years of age, suffering from leucemia. Since the further contributions have been made by Krause, Cahen, Fabre, Lebedinski and Grawitz. A few cases of enlargement of the thymus have also been described in Hodgkin's disease by Bennett, Murchinson, Eberth and Birch-Hirschfeld. The patient observed by the writers was a girl, five years of age, who was brought into the hospital after having been sick

but a few weeks. When admitted there was considerable edema about the parotid, submaxillary and palpebral regions. The lips and extremities were cyanosed; respiration was hurried and laborious. The tonsils were large and the gums swollen. The lymph-nodes were much enlarged; liver and spleen were similarly augmented in size. The blood-count showed the presence of 1,252,400 reds, and 54,250 whites. The child died of asphyxia. The autopsy findings confirmed the clinical diagnosis. The thymus was further found to be much enlarged (8 mm. x 6 cm. x 8 cm); weight 111 grams. The intrathoracic pressure was found to be largely due to the encroachment by the enlarged thymus. The microscopic features of the thymus have considerable interest; the whole organ was transformed into tissue resembling that of an ordinary lymph-node, with a complete disappearance of Hassal's corpuscles.

Leucocytes in Acute Rheumatism.—ACHARD and LOEPER (*Comptes Rendus de la Société de Biol.*, Dec. 7, 1900) have completed a study of the leucocytes count in acute rheumatic fever. In the fourteen cases studied, they constantly observed a leucocytosis reaching as high as 21,000 to the cubic millimeter; the increase was essentially polynuclear in type, rarely over eighty per cent. Toward the end of the acute period, as well as during convalescence, the eosinophiles were found rather high (13 per cent.). Sometimes during the febrile period myelocytes were present in two- or three-per-cent. proportions. The joint fluid was examined in four cases and found to contain almost exclusively polymorphonuclear leucocytes.

Histological Diagnosis of Rabies.—The great practical importance of the histological method of diagnosing hydrophobia, recently introduced by Van Gehuchten and Nélis, led CARLOS FRANÇA (*Comptes Rendus de la Société de Biol.*, Nov. 30, 1900) to further investigate its usefulness in current practice. The animals made use of by Van Gehuchten and Nélis died as the result of the natural progress of the disease; most of the material sent to laboratories for examination consists on the other hand, of tissue from animals killed before the disease has sufficiently progressed to kill them. To find out in how far the histological method could be relied upon with such tissues was the main object of França. The conclusions of the writer are as follows: (1) In rabid animals which died prematurely the ganglionic cell-changes described by Van Gehuchten and Nélis were sometimes absent. (2) In these animals it is the rule to find round extracapsular elements in greater or less numbers. (3) The bulbar lesions appeared on the whole more intense than those of the ganglion cells. (4) It is impossible to wholly rely on the microscopic findings in the nervous symptoms of prematurely-dead rabid animals in establishing the diagnosis of hydrophobia.

Ascarides Lumbricoides and Appendicitis.—The following observation of ARBORÉ-RALLY

(*Arch. de Méd. des Enfants*, Dec., 1900) is of considerable interest in showing how closely under some conditions the presence of the ascarides lumbricoides in the intestine may induce symptoms simulating those of appendicitis. The case in question was that of a ten-year-old child who had been sick for three days when seen. The patient had been suddenly taken ill with intense pain in the abdomen, followed the next day by vomiting; the bowels were constipated. When first seen the author found the child with fever, rapid pulse (120), and incessantly vomiting. Recurring abdominal pains (intervals of fifteen minutes) and cutaneous hyperesthesia all over the abdomen made palpation difficult. The point of maximum pain was in the region of McBurney's point; there was also considerable abdominal rigidity. On the fourth day the condition became more aggravated, with some tympanites and increased tenderness over the appendiceal region. The condition became so urgent that surgical consultation was obtained; but it was decided to wait a little longer. Finally, during the night of the fourth day of illness, an ascarides lumbricoides, 16 cm. long, was vomited. Thereafter amelioration was quite rapid.

The Bone Lesions of Myxedema.—Most observers who have studied myxedema regard the bone lesions met with in this affection as rachitic in character. SIEGERT (*Archives de Médecine des Enfants*, Dec., 1900), however, in a recently published paper contends that the lesions of the osseous system in myxedema are of a very different character. The author finds, instead of the premature ossification of the long bones in rachitis, a tendency quite the other way in myxedema, as shown by the investigation of Hofmeister upon rabbits. The epiphyseal cartilages in lieu of early ossification, as in rachitis, remain cartilaginous more or less indefinitely. The writer further finds that the cartilages at the base of the skull persist, as well as the large fontanelle, in all cases of the congenital form, up to the age of thirty; in some cases even up to forty years. He concludes thus: (1) The osseous lesions of myxedematous idiocy are specific in character, due to a hypoplastic chondrodystrophy. (2) They are wholly independent of rachitis; they present, on the contrary, a true antagonism to rachitis in their inception, development and results.

Fecal Impaction.—The difficulties and possible errors of diagnosis are illustrated by the following case, says DR. LICHTENSTEIN (*Centralblatt f. Gynaekol.*, Dec. 1, 1900): A few months ago he was hurriedly called in the absence of the attending physician to see a patient in the throes of long retained urine. Before obtaining any history he relieved her with the catheter, after coaxing it past a mass which compressed the urethra against the symphysis pubis and apparently filled the pelvis, of about 850 cubic centimeters of heavy foul urine. He then set about ascertaining the trouble and elicited the fact that the catheter had been in use for some time, owing to this slowly increasing mass which her physician said was a growth requiring

operation, which had been delayed owing to her enfeebled condition. Ordinarily her health had been good, menstruation normal, bowels regular, appetite good. She presented an examination, pallor, accelerated pulse, no fever, general nervousness, fair strength and weight. In the right iliac and lumbar regions were many hard, round, uneven more or less fixed masses, which could be traced downward toward the pelvis. In the mid-line was the uterus displaced upward out of the pelvis. In the vagina the uterus was out of reach and the relations were distorted by the growth which appeared to be in the cul-de-sac of Douglas. By the rectum this mass was made out to be feces which had accumulated in the rectum, filling it and the pelvis completely, and the sigmoid colon was pushed over to the right. Manual cleaning of the rectum was done and large doses of castor oil ordered each night. For three days she continued to pass inspissated feces until finally her intestines appeared normal. Proper attention to her bowels after that effected a cure.

Bisection of the Uterus in Pelvic Surgery.—H. A. KELLY (*Annals of Gynecol. and Pediat.*, Dec., 1900) describes the following operation for the removal of pelvic inflammatory masses by the abdomen after bisection of the uterus. It is applicable to such cases as present the most dense and extensive adhesions between the uterus and its adnexa and all the surrounding viscera, so that the usual method of dissecting out one adnexum, then the uterus, and finally the opposite adnexum is not possible. The abdominal cavity must be minutely walled off with pads from the pelvis and all abscesses, cysts or hematomata reduced by aspiration to gain space. The bladder is then separated from the uterus and the fundus of that viscus found. In the middle line between two pairs of museau forceps the uterine body is bisected as far as the cervix for a supravagina hysterectomy and as far as the vagina for a pan-hysterectomy. As the division is extended downward the clamps are advanced also, so that they act as tractors on the already bisected part. On either side of the cervical halves or stump the uterine vessels are isolated and ligated; each half of the uterus is freed from below upward from its adnexum, until this alone is left on each side for the final dissection in a free field. At times the uterus is adhered directly to the rectum. Then the anterior wall is first divided down to the cervix. Here the vessels are again secured and the uterus freed posteriorly from the rectum from below upward, step by step. As needed pieces of the uterine body may be sliced off if adherent to the bowel. When the uterus is finally free behind the posterior wall is bisected and the procedure as above followed.

Foreign Bodies in the Bronchi.—The peculiar absence of all urgent symptoms and the total recoveries of the following two cases of foreign body in a bronchus are of great interest, says E. F. SYRETT (*Lancet*, Dec. 15, 1900). Case I., boy, thirteen years old, first seen May 12, 1900, ailing for

three weeks, cough, fever to 103° F., pain in the right chest, flushed cheeks, impaired percussion and deficient breathing over the whole lung, moist râles at the apex in front and behind in the right chest, abundant bloody, mucous expectoration. Rest in bed for two weeks was had, when normal temperature, persistence of the signs, but absence of symptoms induced ambulatory treatment. He was seen each week for the next two months and remained about the same. July 26, 1900, while struggling to take a stick from a dog, a violent attack of coughing came on and a small round pebble like a cherry-stone was expectorated. Recovery followed. It transpired that during a football game he had inhaled this stone while carrying it in his mouth. Case II., a thirty-three-year-old woman on September 12th, 1900, inhaled while under gas a wisdom tooth which the dentist had let slip. She had bloody expectoration and signs of a violent bronchitis over both lungs. On September 25th she coughed up the offender, hitherto not suspected, and went on to recovery.

Paraffin Injection in Incontinence of Urine.—R. GERSUNG (*Centralbl. f. Gynaekol.*, Dec. 1, 1900) describes a case of obstinate postpartum vaginovesical fistula cured by operation, but followed by incontinence of urine, persisting for many years. This resisted several interferences, including three torsions of the urethra, following the last of which came gangrene of most of the canal. The patient then came under the author's treatment, which consisted in other attempts to twist the stump of the urethra and neck of the bladder and finally to cause a fold in the neck. Temporary improvement and then relapse occurred. The patient went home to rest in a condition of incessant dribbling while sitting, standing or walking and continence for only a short time and small amount while recumbent. After a while she returned for further treatment which was begun notwithstanding an acute gonorrheal colpitis. July 19th, 1900, under cocaine, paraffin was injected in a ring about the bladder end of the urethra remnant, in the form of unguentum paraffinæ, 3.50 grams. Irrigation was retained. After a few hours catheterizing was necessary and again the next day. After two days there was continence in the recumbent, but dribbling in the erect position of the trunk. July 26th, under cocaine, 2.50 cubic centimeters of the same preparation were injected, reinforcing the former and making a thick ring which was palpable from the vagina, apparent in the vestibule about the neck of the bladder and encroached upon the lumen of the viscus much as a slightly enlarged prostate does in the male. During the next twenty-four to thirty-six hours the patient was harassed by violent urinary tenesmus, recurring every five or ten minutes. Whether this paraffin ring or the complicating gonorrhea was the cause was never determined definitely, but the condition soon improved, and July 31st, at discharge, the patient remained dry in the erect position and in walking for one to one and a half hours. This control increased to five hours during the next three weeks while still under treatment for the gonorrhea. Meanwhile the

paraffin mass had not in the least altered. October 25th the patient described her condition as much better; walking about she could hold her water for from four to six hours, for ten hours while resting. While active the bladder would contain about three and one-half deciliters. Micturition was voluntary, but intermittent, a good stream being interrupted at short intervals by brief dribblings until the bladder was empty. This seemed to depend upon respiration. Whether such paraffin injections will be generally serviceable remains to be proved, but the condition of this woman three months after treatment indicates that it has possibilities worthy of trial.

Prophylaxis in Asepsis.—A. HAMMESFAHR recognizes that the hands once infected cannot be rendered absolutely germ-free the same day (*Centralbl. f. Chirurg.*, Nov. 24, 1900), although it is possible to so reduce the number of germs as to render infection unlikely or trivial so that the ordinary body resistance will successfully combat it. Prophylaxis against inoculating the hands is the best and supreme method of acquiring asepsis and it is a duty alike to the surgeon, assistants, nurses and other attendants. Examination and treatment of all the body canals and cavities should be done with hands or at least fingers protected with rubber gloves or stalls against contamination, notably the mouth, throat, vagina and rectum. Bad teeth or other oral disease in the surgeon should be cured lest by cough or speech the wound become inoculated. The hair of the scalp and face should be kept closely cut. Seborrhea must not be tolerated. A beardless face is best. In removing dressings only instruments should be used and when these fall upon the operating-room floor attendants should handle them only with special forceps. After a septic operation has been done nothing in the room should be touched until the hands and gloves are cleaned, such as door-knobs, water-faucets, furniture, etc., which thus smeared can infect the next comer. For most operations rubber gloves, head bandage and all other precautions are commended. In ordinary social and professional relations some glove protection of the hands is advised to avoid the likelihood of infecting the skin unawares. In general terms such rational straightforward guardedness is enjoined upon the internes, who must not evacuate an abscess and then attend a confinement.

New Craniectomy Instruments.—L. GIGLI (*Centralbl. f. Chir.*, Dec. 1, 1900) claims the following advantages for his new craniectomy set: Simplicity, asepsis, rapidity, certainty and universal application. It comprises a special boring mill, curved hollow sound with traveling hook on a wire running in its center and a thread carrier. The borer consists of a large deeply corrugated, horizontally placed handle for the left hand to grasp. Through the body of this handle passes a short shaft horizontally and at right angles to the same. On this shaft plays a cogged pinion with the usual handle for turning it. The shaft which carries the drill is vertical to the foregoing and at its top has a small wheel meshing with the drive wheel. The depth of the hole is fixed by an adjustable guard

whose face is across the axis of the drill. The cleanest and most rapidly drilled holes are given by the ordinary carpenter's auger-bit, with a central screw center and two lateral cutters. The diameter of the holes is best four to six millimeters. The curve of the sound is such that it can be passed through such a hole, between the dura and the bone and the position of its point is estimated from the direction and place of its handle. A little beyond this point the next hole is to be drilled. The thread-carrier is made of two small curved hollow staffs opposed to each other along their long axis and hinged at two places. At their center is a device by which the points may be separated or approximated and at the end of the shank is the handle which fastens off the thread. This starts down one staff out of its point, across to and into the point of the other, and so back to the handle. With the thread in position when the points are separated, it passes straight across the interval and where it is easy of access by the traveling hook of the hollow sound. Through the second hole the thread carrier is therefore passed and opened. The hook soon finds the thread and pulls it through the first hole with the wire saw following. Then the cut through the bone is made. The rapidity and very slight loss of substance of the bone commend it greatly.

Heart Reflex.—Some time ago a peculiar phenomenon, known as the lung reflex, was described by A. ABRAMS, which consisted in a dilatation of the air vesicles and a partial obliteration of the cardiac, liver and splenic dulness as a result of cutaneous irritation. He now describes and illustrates (*Med. Rec.*, Jan. 5, 1901) another condition called the heart reflex, which he has fully investigated and believes will be of considerable value in the future. He has found that if the skin in the precordial region be vigorously stimulated by rubbing with a blunt instrument, such as an eraser, a contraction of the myocardium is observed. The contraction is not sudden or of momentary duration, but lasts usually not less than two minutes and remains after the stimulation has ceased. In individuals with dilated hearts the reflex is very evident and of much longer duration than in normal hearts, and the nearer we approximate the precordial region with a fluoroscope and the more vigorous the cutaneous irritation, the more decided will be the change. The value of this sign can be readily appreciated in differentiating between a dilated heart and pericardial effusion. In estimating the amount of reduction of cardiac dulness, it is necessary to wait two minutes after the application of the stimulation, for the lung reflex which causes a diminution in cardiac dulness is not abolished until the end of that time. Although this strange reaction is better demonstrated by the fluoroscope, percussion is also at times very satisfactory.

Anteroposterior Subdivision of the Bladder.—EUGENE FULLER (*Jour. Cutaneous and Gen.-Urinary Dis.*, Dec., 1900) reports in detail two cases of this rare and interesting anomaly.

These are, the writer believes, the first cases of this anomaly to be reported. In both these cases the transverse partition lay anterior to the ureteral openings so that all the urine first entered the posterior vesical chamber. The anterior chambers were small, holding about an ounce to an ounce and a half, with rigid walls, while the posterior ones were roomy and distensible, comparing closely in those respects with the normal vesical cavity. The two chambers were connected in the upper middle portion of each partition by an oval aperture, and capable in one case of admitting at once the tips of the fore- and second finger. The vertical diameter was the greater. In the other case the connecting aperture was so narrow that it could admit only the tip of the forefinger. This aperture was round. In this case the bladder cavity resembled an hourglass except that the posterior vesical chamber was larger than the anterior. In both cases the distance from the base of the bladder to the lower margin of the aperture was much greater than from the upper margin of aperture to the superior wall of the bladder. In both instances the partition was very thick. In one case the cavity of the anterior chamber was irregularly spanned by numerous fine fleshy columns similar to the columnæ carneæ of the heart. The marked clinical feature in these two cases was the slowly-increasing difficulty in urination. This began in early life and finally ended with retention. This difficulty had been so gradual that a maximum amount of compensatory hypertrophy had developed in connection with both the vesical and abdominal walls. Both patients had urethral strictures, but this condition appeared to be a late and more or less accidental condition. Both gross and histological examination of the specimens showed that the prostate did not enter into the formation of the anterior chamber.

An Unusual Estivo-autumnal Case.—Malaria frequently causes such peculiar groups of symptoms that the microscope is the only means by which diagnosis can be made. G. L. PEABODY, (*Med. Rec.*, Jan. 5, 1901) reports the case of a patient who was received in the New York Hospital, suffering from severe headache which had recurred nearly every afternoon for six months, coming on about three o'clock and lasting usually until eight or nine o'clock in the evening. The patient had never had a chill, but his headache was accompanied by considerable fever, and for several months there had also been added to his daily distress severe attacks of abdominal pain, starting near the umbilicus and radiating toward the left kidney. The pain was sometimes relieved by walking and always by vomiting, so that the latter was frequently induced. The splenic area of dulness was increased and a firm, hard mass could be felt in the left hypo-chondrium, not extending beyond the free border of the ribs and not movable with respiration. The blood showed the presence of crescents, and the patient was put upon quinine, gr.

xv a day, and Fowler's solution, \mathfrak{m} iij, after each meal. After two weeks his attacks of headache, pain and fever had subsided, the spleen was movable with respiration and palpable. It is believed that the pain was caused by adhesions binding the spleen down and resisting the enlargement of that organ.

THERAPEUTIC HINTS.

Melancholia.—These patients, says Mr. Allen Starr, cannot be diverted and amused as they are exhausted and distressed and must not be encouraged to make efforts, therefore a quiet country place is most suitable. The food must be nutritious and easily digestible, and must be helped out by stimulants as wine or milk-punches. Intestinal antiseptics such as sodium benzoate, salol, or enteric pills of potassium permanganate, cardiac stimulants, vasodilators, and glycerophosphates, gram 1.0 (gr. xv), tid., constitute the routine medication. Warm baths and alternating hot and cold douches are beneficial. Morphine does not cause the habit and is specific in relieving the mental symptoms; it may, however, constipate. A good formula is:

\mathfrak{R} Morphin. bimeconat.

Aloinaa. 0.003 (gr. $\frac{1}{30}$)

Strychnin 0.0006 (gr. $\frac{1}{100}$)

Insomnia must be prevented by hypnotics, different types of these being used on successive nights.

Gastrospasm.—The treatment, write Van Valzah and Nisbet, is almost exclusively dietetic. In the beginning the diet should be soothing and small in quantity, as hot milk. The amount should be gradually increased, and after a week cereals, and later meats may be added, so that the stomach may gradually be rendered tolerant of larger and larger quantities of food. The bromides act only as palliatives, cannabis indica is uncertain, and belladonna is of no benefit. Aconitine and codeine in combination are of the greatest value. Vigorous massage is beneficial, and sedative galvanization and a hot compress may be tried.—*Diseases of the Stomach.*

Impetigo Contagiosa.—Scrub with warm water and soap, writes Geo. T. Jackson, and cover with 5-per-cent., carbolyzed vaseline, or oxide-of-zinc ointment with 5-per-cent. carbolic, or with 5-per-cent. ointment of ammoniated mercury. If crusts are present, remove by soaking with oil or warm water; if bullæ, prick at their most dependent part and let the fluid escape.—*Diseases of the Skin.*

Acute Epididymitis and Orchitis.—The treatment, writes Hermann Tillmanns, includes energetic catharsis at the outset, elevation of the scrotum, absolute quiet, and the application of ice. Repeated warm baths diminish the pain, or hypodermics of morphine, or rectal narcotic suppositories. The galvanic current also gives relief, the positive pole being placed on the testicle, and the negative pole on the cord. The author

also likes inunctions of blue ointment. When the acute inflammation is over, employ moderate compression, preferably by an India rubber suspensory. Strapping the scrotum with strips of adhesive plaster is not only unpleasant to the patient, but also dangerous. If the patient can walk about, the scrotum is besmeared with vaseline and covered with rubber tissue with a hole for the penis, then with cotton and a suspensory, so that by the perspiration that forms on the scrotum the whole dressing makes an efficient means of applying moist heat.—*Text-Book of Surgery.*

Catarrh.—In nasopharyngeal and aural catarrh associated with anemia, Lennox Browne prescribes:

\mathfrak{R} Tinct. ferri chlorid. . . 0.65-1.3 (\mathfrak{m} x-xx)
Ammon. chlorid. 0.65-1.3 (gr. x-xx)
Aq. chloroform. 15.0 ($\frac{3}{4}$ ss)
Aqua. q. s. ad. 30.0 ($\frac{3}{4}$ j)

M. The sal ammoniac appears to aid the assimilation of the iron.—*Diseases of the Throat and Nose.*

Smallpox.—Quinine, in doses of 0.35 gram (gr. v) doses with camphor, 0.2 (gr. iij), and tincture of perchloride of iron are, writes J. W. Moore, the most valuable internal remedies. The following is useful:

\mathfrak{R} Tinct. ferri perchlor. . . . 8.0 ($\frac{3}{4}$ ii)
Acid. phosphor. dil. 6.0 ($\frac{3}{4}$ iiss)
Glycerin 10.0 ($\frac{3}{4}$ iiss)
Tinct. aurant. 15.0 ($\frac{3}{4}$ ss)
Ap. chlorof. q. s. ad. 180.0 ($\frac{3}{4}$ vj)

Sig.: One ounce every six hours.

A palatable effervescent chalybeate is a mixture of a tablespoonful of:

\mathfrak{R} Ferri et ammon. cit. 8.0 ($\frac{3}{4}$ ij)
Ac. citrici. 10.0 ($\frac{3}{4}$ iiss)
Aqua. q. s. ad. 180.0 ($\frac{3}{4}$ vj)

with two tablespoonfuls of:

\mathfrak{R} Potassii bicarb. 20.0 ($\frac{3}{4}$ v)
Spt. chlorof. 8.0 ($\frac{3}{4}$ ij)
Aqua. q. s. ad. 360.0 ($\frac{3}{4}$ xij)

Light should be kept from the face, and the surface heat and vascularity regulated by light poultices over the entire face, or a mask of lint steeped in glycerin and water, and covered with oiled silk. This excludes air, keeps the parts moist, lessens irritation, and so favors the prevention of pitting. Antiseptic and astringent dusting powders are comforting to the skin, such as boric acid, bismuth subgallate or:

\mathfrak{R} Ac. carbol. 2.0 ($\frac{3}{4}$ ss)
Zinci oxid. 30.0 ($\frac{3}{4}$ j)
Lycopod 30.0 ($\frac{3}{4}$ j)

The crusts should be separated early by linseed poultices. In the bad cases the delirium, the fetor, and the pain seem to be rapidly overcome by warm baths and alcoholic stimulants. Affections of mouth, tongue, and pharynx are best treated by ice and antiseptic sprays. Diarrhea may be controlled by starchy foods, by a poultice or wet compress on the abdomen, or by intestinal astringents.—*Twentieth Century Practice.*

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

COMMUNICATIONS in the form of Scientific Articles, Clinical Memoranda, Correspondence, or News Items of interest to the profession are invited from all parts of the world. Reprints to the number of 250 of original articles contributed exclusively to the *MEDICAL NEWS* will be furnished without charge if the request therefor accompanies the manuscript. When necessary to elucidate the text illustrations will be engraved from drawings or photographs furnished by the author. Manuscript should be typewritten.

SMITH ELY JELLIFFE, A.M., M.D., Ph.D., Editor,
No. 111 FIFTH AVENUE, NEW YORK.

Subscription Price, including postage in U. S. and Canada.

PER ANNUM IN ADVANCE	\$4.00
SINGLE COPIES	10
WITH THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, PER ANNUM	7.50

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in registered letters.

LEA BROTHERS & CO.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,
AND NOS. 706, 708, & 710 SANBORN ST., PHILADELPHIA.

SATURDAY, JANUARY 19, 1901.

IN 1800.

THE nineteenth century has been an age of experimental creation in medicine. Innumerable facts have been gathered by diverse men in a slow, minute, painstaking fashion, and here and there, at some master touch, the seeing eye has discerned that underlying the scattered particles of fact there is a fundamental principle that, like a magnet, draws them all into correlation with each other.

The progress thus made in one hundred years is startlingly apparent in reading old text-books by the great medical men of the eighteenth century. The gaps they strove to bridge, the shrewd guesses at causes which the poor microscopes of the day had not revealed, the foreshadowing of treatment that is to-day established by experiment, all indicate how great has been the march toward health by the discovery of hitherto hidden principles.

A Century's Retrospect of Medicine forms the contents of the last number of the old century of the *British Medical Journal*, and in the series of papers describing the medical ideas in 1800, we find a picture of the times and conditions of hygiene and medicine that stimulates us to an appreciation of many nineteenth century blessings that we have learned to take for granted.

In a day when ladies wore low-necked and short-sleeved dresses out-of-doors in all weathers, and when the whole community was guiltless of woolen underclothing, and when no man would carry such a feminine thing as an umbrella, there was plenty of opportunity for pneumonia, "in which condition," says an eighteenth century text-book, "the lungs are sometimes converted into a solid substance very much resembling the liver." In an age when everybody ate too much, and drank to excess, digestion was but little understood. It was taught that digestion was performed in the stomach, and was no other than a corruption or putrefaction of food, performed by a menstruum that was chiefly saliva, for it was not until 1824 that Dr. Prout discovered hydrochloric acid in the gastric juice, and 1836 when Schwann isolated pepsin.

In Lambert's History of London (1806) we read, "No city in the world is better supplied with water than London, every house in which may receive a regular supply of this necessary article three times a week by paying a moderate annual sum to one of the water companies." The possibilities of hygienic living in 1800 were further limited by the use of cesspools, the total lack of bathrooms, and the evils of poor and inadequate drainage and ventilation, to say nothing of the absolute ignorance of the community on the subject of infectious diseases.

The great discoveries of the century cluster naturally around the discovery of germs, as the bearers and propagators of contagious diseases, and the discovery of antiseptics; but hardly less have the great advances in chemistry and biology opened the field for correct investigations in anatomy and physiology and every other branch of medicine.

One hundred years ago the nature of the secretions of the body was almost unknown, the mechanism of respiration was not understood, nor were the abnormal signs of it recognized until the stethoscope was applied. It was taught, in connection with the nerves, to quote one authority, that "from the vessels of the cortex a liquor is separated into the hollow pipes of the medulla which are continuous with the small tubes of the nerves even to their soft, pulpy extremities, so as to be the cause both of sense and motion." Concerning the brain the chief interest lay in determining the seat of the soul.

In 1800 the Retreat at York had been established for eight years, and the system there adopted of treating the insane with humanity

aroused a frantic opposition, for the chain, manacle and muzzle method of relieving the community from the insane was in vogue. One-half the lunatics in Great Britain were not provided for, and, owing to the scanty accommodations in asylums, many were detained in prisons or workhouses, or chained in the cellar or in the garret, or else allowed to wander half-naked through the country. But the lot of these was considered enviable compared with that of those who were cared for in "madhouses," for the lunacy laws offered no legal protection for the insane. The generally-accepted method of treatment for insanity was described in 1900 as follows: "Patients are ordered to be bled about the latter end of May, according to the weather; after they have been bled they take vomits once a week for a certain number of weeks; after that we purge the patients."

In the last hundred years, smallpox as an epidemic has become a disease less to be feared than measles. Scurvy, the bane of sailors in the eighteenth century, is almost a disease of the past. Jail-fever has gone forever from the prisons; and hospitals, the greatest beneficence to science and to the sick, have grown to their present number and condition.

And yet it is not with the presumption of having acquired all knowledge that these men have reviewed the century's progress; but with a humility mingled with confidence that the advances which will be made in the next hundred years will show the knowledge of the present to be as inadequate and antiquated as that of a hundred years past in the light of to-day.

NEW YORK'S UNDERGROUND RAILROAD AND PUBLIC HEALTH.

FROM present indications the long-talked-of underground railroad is at last to become a reality. The undertaking, as is inevitable with any great innovation, is attended by many inconveniences and minor evils, not the least of which is the impassability of the streets where excavating is in progress. Even with the best possible arrangements for removal of *débris* and the speedy execution of contracts, New York must long suffer the presence of unsightly ditches in her thoroughfares and the unavoidable interference with business and travel.

Apart from the inconvenience there seems to be in the minds of many persons a fear that the excavations will be detrimental to health, chiefly by causing an epidemic of malaria. The idea that malarial germs are set free by exposing upturned earth is one of the popular misconceptions that is

rapidly going out of fashion even in the minds of the laity.

Were the history of the *Anopheles* and its development in pools of stagnant water better understood this uneasiness would be readily allayed. In this connection it is well to remember that the cases of malaria appearing in our hospitals and clinics and sometimes in private practice hail usually from Jersey City, Long Island or the Bronx, where the extensive low-lying and swamp-grounds offer to the *Anopheles* exceptional breeding facilities. On Manhattan Island, however, owing to its extremely rocky formation, one rarely finds these conditions, consequently malaria is uncommon in this most populous portion of New York.

That it will increase does not seem probable, as it is not the mere turning-up of the earth, but the formation of pools from the possible bursting of a pipe or a heavy rainfall that causes the danger. Such pools, if allowed to collect and stagnate, might cause the excavations to become a menace to health, but proper drainage will be provided and precaution taken against such emergencies. Consequently there will be small chance for the breeding of any stray *Anopheles*.

The possibility of any outbreak of disease of any kind is rendered still more remote by the wise provision which enacts that the work shall be done in sections, each of which shall cover not more than 400 yards, so that each excavated portion can be built in and finished with greater dispatch and less risk to health than if larger areas were opened.

One feature of the question which suggests an important topic is in reference to the constant escape of illuminating gas into the atmosphere. While the amount of this gas which may be found in the air must be small, certain effects are known to follow the constant inhalation of even minute quantities of this gas. Workers about gas factories and foundries, bakers, cooks and laundresses, are known to suffer from the effects of too much carbon-monoxide gas. The most important symptom is a peculiar type of anemia, due to the destructive action of the gas on the red blood-cell. Brouardel has shown that choleraic symptoms are not infrequently observed under similar conditions and peculiar muscular pains are frequently observed.

It seems not unlikely, therefore, that among those living in close proximity to the open cuts of the underground a certain amount of chronic gas-poisoning may be expected.

The destruction of the beautiful shade-trees along the Western Boulevard is one of the regrettable incidents of the work, but it cannot be said to affect the city's health adversely. Unfortunately the dwellers in the rocky sections must suffer inconvenience from the severe blasting, but as this, according to law, must be done only during certain hours of the day, the nuisance will be considerably minimized. The only persons, therefore, who will be unpleasantly affected are invalids and those suffering from neurasthenia.

In any enterprise of such magnitude, drawbacks of a more or less serious nature are unavoidable, but from present indications the completed work will justify the discomforts incidental to so great an undertaking.

ALFRED RUSSEL WALLACE AND VACCINATION.

WE are in the midst of reviews of the past century's work in all branches and the progress in medicine, because of its universal interest, has come in for even more than its share of laudatory review. As a rule, the opinions expressed on advances in medicine have been worthy of the magnificent development that has taken place.

No better exemplification of the maxim that the shoemaker should not go beyond his last has been furnished for many years, however, than the failure of even scientific minds to understand the significance of certain phases of medical progress. The most glaring example of the failure of a great scientific mind to appreciate a distinct medical advance is afforded by Alfred Russel Wallace's judgment of the value of vaccination.

"The Wonderful Century," the volume in which the sharer with Darwin of the development of the theory of evolution expresses his views as to scientific progress during the past hundred years, was published some time ago, but has taken on a new interest in these last few weeks, because of the oft-quoted chapter "Vaccination a Delusion." Wallace does not mince words in his declaration of opinion. He thinks that he can satisfy his readers of the certain and absolute uselessness of vaccination as a preventive of smallpox. "Vaccination," he declares, "is a gigantic delusion. It has never saved a single life. It has been the cause of so much disease, so many deaths, such a vast amount of utterly needless and altogether undeserved suffering, that it will be classed by the coming generation among the greatest errors of an ignorant and prejudiced age,

and its penal enforcement will be considered the foulest blot on the generally beneficent course of legislation during the century."

Needless to say this tirade is only the wild vaporing of a fanatic antivaccinationist. Vaccination has constantly grown in medical favor all over the world during the last twenty-five years. The more thoroughly it has been tried, the more confidence has it elicited in its power to protect. The armies of Europe present the best proof of this. They are ruled by men who would soon do away with the bother of vaccination were it not for the profound and growing conviction that to Jenner's discovery and its universal application are due the modern freedom from smallpox in camp and barracks. The disease was one of the worst and most feared scourges of army life, and is now almost unknown.

Mr. Wallace's surprising declaration can be properly understood only by a knowledge of his views on other matters related to medicine, of which he knows as little and has perhaps even less reason for his opinions than on vaccination. In the same volume, in his essay on "The Neglect of Phrenology," he says: "In the coming century phrenology will assuredly attain general acceptance. It will prove itself to be the true science of mind. Its practical uses in education, in self-discipline, in the reformatory treatment of criminals, and in the remedial treatment of the insane, will give it one of the highest places in the hierarchy of the sciences, and its persistent neglect and obloquy during the last sixty years will be referred to as an example of the almost incredible narrowness and prejudice which prevailed among men of science at the very time they were making such splendid advances in other fields of thought and discovery." Almost as erratic are Mr. Wallace's utterances on hypnotism and psychical research. "Thought transference," he says, "automatic writing, trance-speaking, and clairvoyance have been all demonstrated in the presence of living observers of undoubted ability and knowledge. The still more extraordinary phenomena—veridical hallucinations, warnings, detailed predictions of future events, phantoms, voices or knockings, visible or audible to numerous individuals, bell-ringing, the playing on musical instruments, stone-throwing, and various movements of solid bodies, all without human contact or any discoverable physical cause, still occur among us as they have occurred in all ages. It is absolutely certain that during the coming century they, too, will be accepted as realities by

all impartial students and by the majority of educated men."

Verily the prophetic picture the great evolutionist draws for us of our state of mind in the century we are just entering is not very attractive. Fortunately there is no guarantee that Mr. Wallace is either a prophet or the son of a prophet. We can then contemplate with more peace of mind than might otherwise be possible the prospective opinions by which the rising generation are to be ruled. Had his views on vaccination been given to a hero-worshipping public by themselves, without the precious antidote of his other opinions, there is in them the possibility of working. His antivaccinationism, taken in connection with the equally aberrant fancies in other fields of thought allied to medicine, only emphasizes the old, old lesson, *sutor ne supra crepidam*.

In our day of scientific specialization no one mind can appreciate the significance of progress in widely separated branches of science. To attempt to do so is to invite inevitable failure and to make oneself absurd. This Mr. Wallace has done very effectually. When Tennyson was uttering some of the senilities that even his greatest admirers found it difficult to bear with equanimity, there was many a heartfelt wish that we could muzzle our poets in their day of senile degeneration. It would seem from Mr. Wallace's twaddle that a like procedure would be eminently desirable for our men of science also as they grow old. The age-limit of rational opinion would be hard to decide, but the world would be spared so much nonsense that it could afford to lose some sparks of sense that might be missed if a gag-law were enforced after a certain age.

ECHOES AND NEWS.

NEW YORK.

Alumni Association of the College Physicians and Surgeons.—This Association held its annual smoker at Sherry's last Monday evening.

Manhattan Dermatological Society.—This has just been organized with President, Dr. W. S. Gottheil; Vice-President, Dr. L. Weiss; Secretary, Dr. Jacob Sobel.

Grip Cases Break the Record.—The record of last week's deaths from all causes shows a phenomenal increase in the number of those past their seventy-fifth year. At that age an attack of the grip so weakens the system that the patient succumbs. It is to be hoped that the worst is past and that with favorable weather and extra care the disease will gradually die out.

Dr. Levenson Still Advertising.—The Health Board held a meeting last week, but took no action in the case of Dr. Montagu R. Levenson, the Brooklyn physician who has been reported as having said that he had treated many cases of small-pox without reporting them to the authorities. A demand has been made on Dr. Levenson to make affidavit as to whether he has or has not treated small-pox cases without reporting them, and it was said that the Board was awaiting this reply.

Site for Tuberculosis Hospital Approved.—The State Forest Preserve Board approved of the site at Raybrook, between Saranac Lake and Lake Placid, selected by the trustees for the proposed State Tuberculosis Hospital on January 10th. The purchase price agreed upon was \$7500, which is \$2500 less than the sum which was first asked. The Raybrook site is not near the camp-sites of any individuals and there was no opposition to it. It comprises a little over 521 acres and is about three miles southeast of Saranac village.

Kings County Medical Society.—After a spirited contest the following officers were elected at the annual meeting, Tuesday, January 15th. President, William Browning, M.D.; Vice-President, H. A. Fairbair, M.D.; Secretary, D. Myerle, M.D.; Associate Secretary, W. S. Hubbard, M.D.; Treasurer, O. A. Gordon, M.D.; Associate Treasurer, J. R. Stivers, M.D.; Librarian, J. M. Winfield, M.D.; Censors, W. C. Wood, M.D., J. E. Sheppard, M.D., J. M. Van Cott, M.D., R. J. Morison, M.D., J. P. Warbasse, M.D.

State Board of Health Protest.—The State Board of Health met in Albany January 10th. The Board believes it would not be in the interest of economy, as suggested in the message of Governor Odell, to have the present nine Commissioners replaced by a single-headed commission. After the meeting Dr. Daniel Lewis of New York, President of the Board, Dr. D. W. Smith of Syracuse, Dr. S. Case Jones of Rochester, Attorney General Davies and Owen Cassidy of Montour Falls, members of the Board, together with Dr. Baxter T. Smelzer, its Secretary, called on the Governor and protested against any change, on the ground that it must necessarily cost the State more money.

Work of the Babies' Hospital.—The Babies' Hospital of the City of New York held its annual meeting last evening, and the following officers were re-elected for 1901: President, J. Hooker Hamersley; Vice-President, Oliver G. Jennings; Treasurer of Current Funds, Mrs. John B. Calvert; Treasurer Permanent Fund, Henry R. Kunhardt; Treasurer Building Fund, Felix M. Warburg; Secretary, B. Ogden Chisolm. On the Medical Board for the coming year are: Consulting physicians, Drs. A. Jacobi, F. P. Kinnicut, Pearce Bailey, Thomas E. Satterthwaite, E. B. Bronson; consulting surgeon, Dr. Robert Abbe; attending physicians,

Drs. L. E. Holt, R. B. Kimball; attending surgeon, Dr. Arthur L. Fisk; consultant, eye and ear, Dr. Wilbur A. Marple.

Elmira Reformatory.—According to the report of the new Board of Managers of the Elmira Reformatory, tuberculosis has increased among the prisoners. The report says that many have the disease when they arrive; others develop it under the trying conditions of prison life, and association with those already affected. The management has become convinced that prisoners healthy upon their arrival become affected, and sometimes with astonishing rapidity, by the disease by being steadily confined in the same cell with a consumptive subject. A case of this kind has come to light, that of a healthy patient, who died within six months after he was confined in the reformatory. The report also says that insanity is on the increase in the institution. "As with tuberculosis," the report says, "no careful medical examination has been made to detect its existence in the entering or departing prisoner, and no minute analysis of the population to eliminate from routine requirements those whose mental conditions rendered their compliance difficult or impossible. Under this system there exists at least one well-attested case of long continued punishment inflicted upon a prisoner mentally irresponsible. That insane persons are frequently sentenced to the Reformatory may excite surprise, but it should be remembered on behalf of the courts that they have no expert means of detecting it and that it is often unsuspected. That this is not always the case, however, is shown by the sentencing of a prisoner to the Reformatory by the Supreme Court sitting in Buffalo in October of this year. The prisoner was examined by two reputable physicians, duly appointed commissioners in lunacy, and adjudged a 'high-grade idiot.'" The report criticises the present "inmate monitor" system and says no good can be brought about by utilizing prisoners to watch over others, and recommends that thirty additional guards be employed. The Board says that much of the damage done to the machinery and the plant in general can be traced to the fact that prisoners were used instead of skilled labor.

Dr. J. Henry Fruitnight.—The following resolutions were adopted at the annual meeting of the Northwestern Medical and Surgical Society:

Whereas, It has pleased Divine Providence to sever by death the membership of Dr. J. Henry Fruitnight in the Northwestern Medical and Surgical Society, a membership lasting nearly a quarter of a century; and,

Whereas, We, the members of this Society, desire to place on record our appreciation of the noble and self-sacrificing character of our late colleague, sadly cut down in the prime of life; therefore be it

Resolved, That in the death of Dr. Fruitnight this Society has lost a modest and congenial

companion, a true friend, and a valued professional colleague, whose earnestness of purpose and unselfishness of motive peculiarly fitted him for a large and useful medical career; that he is a severe loss to this Society in which he took a warm personal interest, to the many other medical bodies of which he was a member, and also to the medical profession and the entire community; that his published writings, concise discussions and discriminating thought are worthy of our highest regard;

Resolved, That we sincerely extend our heartfelt sympathy to the members of his bereaved family, wishing for them that consolation which the memory of such a noble life alone can give;

Resolved, That a copy of these resolutions be spread upon the minutes of this Society; that duplicates be sent to the *MEDICAL NEWS*, the *Medical Record*, the *New York Medical Journal*, *Archives of Pediatrics* and *Pediatrics*, and that an engrossed copy be prepared for the family of the deceased. A. M. Jacobus, M.D.; Edward S. Peck, M.D.; A. E. Bieser, M.D., *Committee*.

The Late Dr. Horace T. Hanks.—At the annual meeting of the Medical Association of the Greater City of New York, held at the New York Academy of Medicine on January 14, 1901, the following report was presented: The Committee appointed by the President, Dr. Weir, at the December meeting of this Association, to prepare a suitable minute in regard to the death of Dr. Horace Tracy Hanks, begs to report as follows:

"It is with sorrow that we are called upon to report the death of Dr. Horace Tracy Hanks, one of the Charter members of our Association. Dr. Hanks died of Bright's disease at his home, in this city, on November 18, 1900. He was born in East Randolph, Vermont, on June 27, 1837. He was graduated from the Albany Medical College in the class of 1861. After serving in the Union Army as acting assistant surgeon for two years, he began the practice of medicine in Royalston, Massachusetts, where he remained, however, for a short time only, removing to New York City. He held many positions of responsibility, among which were the professorship of the diseases of women in the Post-Graduate Medical School and attending surgeon to the Woman's Hospital in the State of New York. He was consulting gynecologist to the Tarrytown, Mount Vernon, and St. Joseph's Hospitals. He was a member of the New York Academy of Medicine, the New York County Medical Society, and of the American Medical Association, and was a Fellow of the American and of the British Gynecological Society. Henry D. Nicoll, M.D.; Clement Cleveland, M.D.; Edward E. Tull, M.D., *Committee*.

PHILADELPHIA.

Resignation of Dr. Cattell.—Dr. Henry W. Cattell has resigned the position of pathologist to the Pennsylvania Hospital.

Wills Eye Hospital.—Dr. John Welsh Cros-

key has resigned the position of surgeon and has been succeeded by Dr. McCluney Radcliffe.

Philadelphia Medical Club.—At the annual meeting of the Club, held January 11th, Dr. Edward L. Duer was elected president. The vice-presidents are Dr. John B. Deaver and Dr. Philip Marvel, and the secretary, Dr. Guy Hinsdale, and the treasurer, Dr. F. S. Pearce. The membership is now 313, an increase of 69 during the year.

Influenza Epidemic.—Influenza is epidemic in this city at present, the number of cases being estimated at 70,000. The disease is as yet of a mild type, only five deaths being attributed to that cause during the past week. Reports from Pittsburgh indicate that while the disease there is also of a mild type, an unusually large percentage of the cases show varying degrees of mental disorder.

A New Course in the University.—Dr. W. G. Spiller, who has recently been appointed demonstrator of neuropathology offers, beginning about February 1st, 1901, to a limited number of students in that institution, and moreover to a limited number of graduates in medicine who desire to avail themselves of an opportunity to become practically familiar with the anatomy of the central and the pathology of the entire nervous system, an elective course in those branches. This course will comprise the preparation by the students of a series of slides from the medulla oblongata, pons, cerebral peduncles, and basal ganglia.

Dr. Osler's Address on Perforation and Perforative Peritonitis in Typhoid Fever.—Dr. William Osler of Baltimore, present by invitation at the meeting of the Philadelphia County Medical Society, January 9th, delivered an address on "Perforation and Perforative Peritonitis in Typhoid Fever." Dr. Osler stated that changes in nursing and treatment have greatly reduced the mortality of typhoid fever, although the profession cannot congratulate itself on having lessened the incidence of the disease. The mortality should not now be greater than 7.5 per cent. in hospital practice. One class of formerly fatal cases, namely, those suffering from severe toxemia, has been greatly influenced by modern non-medicinal treatment. Of every 100 deaths from typhoid fever only 50 are due to asthenia, 30 being caused by perforation, and 20 by other complications. In contrast to the toxic cases mentioned there has been no material change in the percentage of deaths from perforation. Two clinical features of this complication are to be emphasized, first, its uncertainty and variability, and, second, the necessity for a complete revision of the methods of observing and recording the symptoms. In this connection two conditions are to be differentiated—the perforation itself and the consecutive peritonitis. It is of the greatest importance to recognize perforation and to operate within twelve hours. Dr. Osler gave in detail the notes of three cases, each one being representative of a type. The

first was operated upon nine hours after perforation and died on the third day. The wound in the bowel had almost healed and the patient had undoubtedly died from typhoid fever itself and not from peritonitis following perforation. In a second case operation revealed two perforations, fecal matter in the pelvis, and the gut in such a necrosed condition that it would not hold sutures. The patient died on the table. This belonged to a class of cases in which fatality is inevitable. The third case was operated upon seven and one-half hours after perforation and made an uneventful recovery, illustrating a class in which operation saves life. A careful study of symptoms has shown that the time-honored ones of sweating, Hippocratic facies, feeble-running pulse, collapse, etc., belong not to perforation but to peritonitis. A fuller knowledge of the symptoms of perforation is needed. Dr. Osler does not believe that much good will result from investigating the so-called preperforative stage, but it is the duty of physicians to study carefully the earliest signs of perforation. A study of the hospital notes of cases will convince anyone of their insufficiency. Every serious case of typhoid fever should be watched by a careful physician who is in constant touch with a surgical colleague. It is better that the patient be watched by a skilled resident physician than to trust to the occasional visits of an attending physician.

Dr. Osler gives specific instructions regarding certain points to be noted by the attendants of a severe case. (1) The night nurse or superintendent is to at once notify the physician of the onset of pain, hiccough, vomiting, increase of pulse or respiration, sweating, or collapse. (2) The character of the pain is to be noted (a) as to its onset, whether an aggravation of previous pain or a sudden pain recurring in paroxysms; (b) as to its locality, whether diffuse or local, in the iliac fossa or hypogastric region, if it radiates—especially to the penis. (3) State the condition of the abdomen as learned by (a) inspection—whether flat, scaphoid, or distended. If the latter, is it uniform or in certain regions. Note respiratory movements; (b) palpation—note tenderness, muscle rigidity or spasm; (c) percussion—note the condition of the flanks and the extent of liver dulness. The latter should be mapped out every three hours, as it may be obliterated in a flat as well as in a distended abdomen; (d) auscultation—note degree of peristalsis and the occurrence of friction sounds; examine the rectum and stools. (4) Observe the general condition of the patient as evidenced by change in expression, pallor, pulse, temperature, respiration, sweating, vomiting, hiccough. (5) Examine the blood. Note if leucocytosis is present, and if so whether stationary or rising. The leucopenia of typhoid fever must not be forgotten in this connection.

An important preliminary to the further reduction of the mortality from typhoid fever is the practical firsthand instruction of senior medical students. This does not mean lectures or recitations, but actually seeing cases and watching their

progress. Dr. Osler referred to the mistakes in diagnosis made by the army surgeons during the Spanish-American war as evidence of the lack of knowledge of typhoid fever, not more than 50 per cent. of the cases being diagnosed as such before they were sent to hospitals. By carefully watching for symptoms of perforation, in severe cases and operating at the earliest possible moment it is probably possible to save one-half of them. Eleven cases of perforation occurring in the wards of the Johns Hopkins Hospital have been operated upon with five recoveries. Out of five additional cases operated upon at once after admission there was one recovery.

CHICAGO.

Bequest to Presbyterian Hospital.—According to the will of Mrs. Aurelia B. King, widow of Henry W. King, which was recently filed in the Probate Court, the Presbyterian Hospital of Chicago receives \$1000.

Will of Mr. H. W. Jackson.—According to the will of the late Mr. Jackson, which was recently filed in the Probate Court, the Presbyterian Hospital, the St. Luke's Hospital, and the Chicago Hospital for Women and Children will receive \$1,000 each.

Medical Society of Rush Medical College.—Recently a Society was organized by the Faculty of this College. Dr. James B. Herrick was elected secretary. The presiding officer will be selected at each meeting. Those composing the Executive Committee are Drs. Frank Billings, Ludwig Hektoen, I. Clarence Webster, L. F. Barker, and Dr. Herrick. The meeting will be held monthly.

Lodging-Houses.—Of the 815 lodging-houses in this city, all of them are conforming to the health laws, according to the annual report submitted by the chief sanitary inspector. It is recommended to the State Board of Health that a room be set aside in each lodging-house where cases of infectious disease can be quarantined temporarily. During the nine months from April 1st to December 31, 1900, 90 suits were brought against owners of houses for violations of the health laws.

Chicago Ophthalmological and Otological Society.—At a meeting, held January 8th, 1901, the election of officers for this year resulted as follows: President, Dr. Casey A. Wood; Vice-President, Dr. William H. Wilder; Secretary-Treasurer, Dr. C. P. Pinckard; Committee on Membership, Drs. William H. Wilder, C. D. Wescott, and Lyman Ware. Dr. Pinckard presented a brief history of the Society from the time of its organization to the present. Dr. A. E. Bulsom, Jr., of Fort Wayne, Ind., read a paper on gonorrheal ophthalmia, with complications, in which he reported several interesting cases.

Garbage Disposal.—The question of how Chicago shall dispose of its hundreds of tons of garbage gathered daily will soon come up for con-

sideration and will come before the Council for action when the municipal cleanliness ordinance is reported back from the Judiciary Committee with its recommendations. As to garbage, there is only one thing to be done. The city must stop the present disgraceful, wasteful way of disposing of its refuse by carting it to pits or dumping-grounds. Such a way of getting rid of the daily *débris* of a great city is discreditable to intelligence and an offense and menace to public health and decency, to say nothing of esthetic considerations.

Enterostomy in Acute Intestinal Obstruction.

—In a paper on this subject, read before the Chicago Medical Society, January 9th, Dr. E. J. Senn emphasized the following points (1) The value of temporary enterostomy in acute intestinal obstruction in selected cases, especially when facilities are not favorable for a laparotomy, and when the patient's condition does not warrant such an operation. (2) Enterostomy is a simple operation, requiring ordinary skill, while laparotomy with radical treatment of the obstruction is very critical. (3) The opening in the intestine should not exceed one-half inch in length, parallel with the axis of the bowel, thereby readily closing after its purpose has been fulfilled. If the obstruction persists after enterostomy, a radical operation can be performed at a later date, when the symptoms have passed away.

Indicanuria and Oxaluria and Gastro-Intestinal Fermentation.—Dr. John A. Wesener read a paper on this subject at the same meeting in which he drew the following conclusions: (1) Traces of oxalates are found normally in the urine, taken in with the food. (2) Oxalate crystals usually denote gastro-intestinal fermentation. Food rich in same must be excluded. (3) Abundance of oxalate crystals does not signify a high percentage of oxalic acid. (4) Indican is usually associated with oxalate crystals. (5) The symptoms of oxalic-acid diathesis, associated with indicanuria, are not due to the oxalic acid nor to the indol, but to other products formed in the process of fermentation. (6) In certain disturbances of the gastro-intestinal tract due to excess of hydrochloric acid, or to excess of fatty acids, indican and oxalic acid are increased. (7) Hyperacidity on a meat diet produces putrefaction.

Medical Inspection of Schools.—Fifty medical examiners, who have been off duty a month, were sent out to the public schools to-day by order of President Harris of the Board of Education. Bulletins were hastily posted to the principals of the city schools notifying them that inspection had been resumed and that they would be expected to furnish lists each day of pupils who have been absent four days on account of sickness. The lists are to be placed in the hands of the truant officers, who will make immediate investigation of the cases and report to the medical inspectors. The action was taken on the advice of Commissioner of Health Reynolds, who asked for assistance from the Board of Education in averting an epidemic of contagious diseases. The prevalence

of influenza and the fear of small-pox led the Department of Public Health to notify the Board that strenuous efforts are necessary to prevent spread of disease. A schedule has been arranged by which emergency calls may be answered at half an hour's notice, and principals have been notified to report at once any cases in which there is a suspicion of contagious disease. It is expected that a general vaccination of school-children will be ordered, and principals and medical examiners have been instructed to give the city examiners all the assistance in their power.

Joint Meeting of Physicians and Pharmacists.

—At a recent joint meeting of physicians and druggists of this State, the following report was submitted and adopted: Pharmacists and those in their employ should positively refuse to prescribe for customers except in cases of urgent emergency. Any person shall be regarded as practising medicine who shall treat or profess to treat or prescribe for any physical ailment or any physical injury to or deformity of another. The law gives to pharmacists no right or authority to diagnose diseases and prescribe medicine therefor, which privilege belongs alone to physicians. Physicians should carry with them or supply to patients emergency remedies only. The substitution of one article for another or one make of an article for another in a physician's prescription, without the physician's consent, is condemned as a most reprehensible practice. Whenever a physician, for any reason, objects to the refilling or copying of his prescription, he should plainly indicate his wishes on the prescription. Pharmacists should refuse to refill a prescription or give copies of them when so instructed by the prescriber. Copies should not be placed upon containers unless ordered to be placed thereon by the prescriber. Physicians prescribing poisonous substances should add such directions as will indicate the use for which they are intended. When unusual doses are prescribed, pains should be taken to indicate to the pharmacist that the quantity prescribed is understood. In case of a suspected error or substitution by a pharmacist in the compounding of prescriptions, physicians should always satisfy themselves by conferring with the pharmacist, as to the true state of affairs, and in no case should the pharmacist be condemned by the physician, or the physician by the pharmacist, either to the patient and family, or in the press without previous careful investigation. Whenever there is a doubt in the mind of the pharmacist as to the correctness of the physician's prescription or directions, he should invariably confer with the physician in order to avoid possible mistakes or unpleasantness, and should not attempt to make any changes without such conferences. Pharmacists should never discuss physicians' prescriptions with customers, nor disclose the composition thereof to them.

GENERAL.

Carmichael Prize of the Royal College of Surgeons, Ireland.—This prize, valued at \$600, has

just been awarded to Mr. H. Nelson Hardy, F.R.C.S., for an essay dealing with the state of physic, surgery and pharmacy in the United Kingdom. (*Brit. Med. Jour.*)

Physician's Gift to a Hospital.—Dr. William W. Lesley, who died in Philadelphia recently, bequeathed \$11,000 to the Delaware Hospital in Wilmington for the support of two free beds.

Jersey Towns Scourged.—Southern New Jersey, especially that section comprising the counties of Atlantic, Cumberland and Cape May, is reported as being ravaged by epidemics of scarlet fever and diphtheria.

Compulsory Vaccination in Kansas City.—Physicians, carrying on the crusade of compulsory vaccination begun recently, January 10th started a house-to-house canvass, vaccinating every one who could not display a good scar.

Yellow Fever.—The American Commission, under the superintendence of Dr. Reed, which has been making experiments at Quemados as to the propagation of the yellow-fever germs by the mosquito, say that they have obtained extremely satisfactory results. Dr. Reed says the experiments show that there is no contagion from an infected person or from infected clothing, but that the mosquitoes alone are responsible for the spread of the disease. Confirmation from other sources is needed, however, to establish this truth.

A Western Medical Organization.—A Pacific medical association is about to be organized. The plan is to have San Francisco the center of a Western medical field, embracing Washington, Oregon, Idaho, Montana, Utah, Nevada, Arizona, California, Alaska, British Columbia, the Hawaiian Islands, the Philippine archipelago, and other islands of the Pacific, the western part of Mexico and of the Central American republics, and possibly the empire of Japan. A preliminary meeting of the most prominent physicians interested in this movement will be held in this city on Saturday evening.

Small-Pox in Galveston.—The small-pox situation in Galveston is alarming, and Dr. Wilkinson, City Health Physician, says he cannot find words strong enough to urge the people of Galveston to be vaccinated. There are at present in the detention camp about twenty patients, three new cases being recently sent there. In the city there are about a dozen well-developed cases that are isolated and guarded. Dr. Wilkinson says the disease was brought to Galveston by the influx of a large number of country negroes who were drawn here by the prospect of earning high wages.

Adulterated Foods in America.—Adulteration of food with chemicals has never been more largely practised and was never more dangerous to the American public than at the present time, according to Prof. H. W. Wiley, chief chemist of the Department of Agriculture, whose paper on "The Legal and Medical Aspect of Food Adulteration," opened a discussion on that subject at a meeting of the Society of Medical Jurisprudence held recently.

Obituary.—Dr. Henry Foster, founder of the sanitarium at Clifton Springs, N. Y., died suddenly January 15th of heart disease. He was in his eightieth year.

Dr. Lucius J. W. Lee died on Tuesday at his home, 655 Quincy Street, Brooklyn, in his sixty-fifth year. He was attached to the Douglas Hospital in Washington, D. C., during the Civil War. He leaves a widow and an adopted daughter.

Dr. Thomas Brown Wheeler, a physician of Montreal, died suddenly in the Murray Hill Hotel last week of apoplexy.

Woman's Hospital.—Dr. P. F. Chambers has been appointed attending surgeon *vice* Dr. Thomas Addis Emmet, resigned.

CORRESPONDENCE.

CRUSADE AGAINST UNLICENSED PRACTITIONERS.

To the Editor of the MEDICAL NEWS:

DEAR SIR: The medical laws of the State of New York provide that, before one can practice medicine, a certificate of proficiency shall be obtained from the Regents of the University of the State, which is given only after a satisfactory examination. The purpose of this law is to protect the people from incompetent practitioners of medicine, and, in so far as the medical profession is concerned, this purpose is accomplished.

There are, however, many irregular practitioners who practice in open defiance of this law, apparently without molestation. This is an incentive to irregular methods, and can only be to the disadvantage of the community at large.

It is the purpose of the Medical Society of the County of New York to begin an active crusade against these unlicensed, and therefore illegal and incompetent practitioners, and we ask the cooperation of the profession and the public generally.

Any information concerning unlicensed practitioners will be gratefully received by the Board of Censors and the counsel of the Society, and will be considered confidential when requested.

Communications can be addressed to the members of the Board of Censors or to the counsel.

FRANK VAN FLEET, M.D., *Chairman*,
63 East 79th Street.

HENRY S. STEARNS, M.D., *Secretary*,
45 West 58th Street.

New York, January 10, 1901.

SUPRARENAL CAPSULE IN ORGANIC HEART-DISEASE.

To the Editor of the MEDICAL NEWS:

DEAR SIR: I intend to publish a second paper on the use of the suprarenal capsule in organic heart-disease. Will you kindly ask the readers of your journal to send me the reports of their cases as follows: (1) The condition of the heart and pulse and pulse-rate. (2) The effect on the heart and pulse

and pulse-rate within ten minutes after the suprarenal powder, three grains, is chewed and swallowed without water, by the patient.

SAMUEL FLOERSHEIM, M.D.

New York, January 15, 1901.

OUR LONDON LETTER.

[From Our London Correspondent.]

LONDON, January 5, 1901.

DECLINE OF THE OUTBREAK OF ARSENICAL NEURITIS FROM BEER-DRINKING—LORD LISTER'S ADDRESS TO THE ROYAL SOCIETY ON THE PATHOLOGY OF MALARIA—THE PREVENTION OF MALARIA IN LAGOS—AN ANTIMOSQUITO GOVERNOR.

As might have been expected the discovery that the outbreak of peripheral neuritis in Manchester and the surrounding district was due to drinking beer contaminated with arsenic has been rapidly followed by diminution of the number of cases. One result of the scare produced by the outbreak is that the numerous analyses of beer have brought to light the curious fact that arsenic may be found in samples prepared entirely from malt and not from the brewing sugars to which the peripheral neuritis has been traced, but in such beer arsenic is present in much too minute a quantity to be noxious. The arsenic has been found in the malt. It is supposed to be due to the coal used in kilning and drying, which contains an infinitesimal amount of arsenic. A number of inquests have been held and the juries have returned verdicts of death from arsenical poisoning.

Lord Lister's address to the Royal Society on the pathology of malaria which he delivered on the occasion of retiring from the presidential chair was a remarkable production in more senses than one. First, as a lucid exposition of what is now something more than the mosquito-theory—a wonderful discovery of vast importance to the human race—nothing could have been better. Second, that a man who has now reached advanced years, whose life-work has long ago been done, should show complete mastery of one of the latest and most intricate problems of pathology and one having no connection whatever with his own work, was astonishing.

The deadly colony of Lagos now boasts of an antimosquito governor. Malaria is the most critical matter in the white man's life there. Every government official after twelve months' duty has to have six months' leave of absence in England to recuperate, that is, if he is still alive, for none escape the scourge. Whilst on duty he is on an average laid aside for three months. Thus in every eighteen months he does nine months' work, the remaining nine being taken up in illness and convalescence. According to the governor, Sir William Macgregor, who is both a scientist and a medical man, Lagos "was designed by Nature as an ideal breeding-ground for the mosquito and has been extensively improved for this purpose by man." As the native malarial patient will supply the mosquito with

unlimited germs, to stamp out the disease seems impossible, but he hopes to minimize it. First, he will personally inspect every town and village on the whole length of the railway line. Wherever he finds a place where the mosquitoes can breed—depressions in the ground where the rain can form pools, unprotected cisterns, uncovered rain-water pipes, water-butts without lids, etc., he will in each case give specific instructions how it is to be dealt with. At the end of a given time he will make a second visit to see that his instructions have been carried out. To keep the mosquitoes out of houses, Sir William is getting an expert chemist to prepare a form of fumigating cone from chrysanthemum seed, the smoke of which stupefies mosquitoes. At present the seed is grown in Hungary and pastilles are manufactured from it in Italy. The governor intends to grow it on the spot. The pastilles will be sold almost at cost price to the natives. Then Sir William is taking out with him a master carpenter, a master tinsmith and a large supply of wire-gauze. He will provide every white official with at least one mosquito-proof room for use after dark. He will also institute a number of mosquito-proof wards in the infirmaries. At the same time natives will be apprenticed to the carpenter and the tinsmith and will learn how to make and fit mosquito doors and shutters and how to make wire-gauze. All the medical men in the colony will lecture on mosquitoes and malaria to the school-teachers, who in their turn will instruct the natives in the ordinary school curriculum.

TRANSACTIONS OF FOREIGN SOCIETIES.

French.

INFECTIOUS ANGIOCHOLITIS—PRIMARY TRACHEAL SUTURE—ARTHROTOMY FOR OLD LUXATION—FRACTURES OF THE LOWER JAW—RESECTION OF THE ELBOW—RESECTION OF THE HIP—RESULTS OF LORENZ'S REDUCTION OF CONGENITAL DISLOCATION OF THE HIP—SERUMTHERAPY AND TUMORS—MASSOTHERAPY IN PHLEBITIS—MULTIPLE PUERPERAL PHLEBITIS AND MORTAL INFECTION—PREPHLEBITIC, PHLEBITIC AND POSTPHLEBITIC PUERPERAL SYMPTOMS—PALPEBRAL EDEMA—APHASIA AFTER TYPHOID FEVER—PRIMITIVE PROGRESSIVE MYOPATHY.

MICHAUX, at the Société de Chirurgie de Paris, November 21st, 1900, gave account of a case of angiocholitis under the care of Pauchet (Amiens). The onset was subacute and accompanied cirrhosis. January 25th last a cholecystostomy was performed and cure followed without incident. Seven months later at the request of the patient a cholecystectomy was performed after the subserous method of Doyen. To Michaux the presence of a cirrhosis did not seem to be established by all the conditions in the operator's report. Since in three bacteriological examinations the bacillus coli communis was formed each time, he thought that the case was an ordinary infectious angiocholitis of mild degree. Nevertheless the patient received very great benefit from the operation. The bacilli in the bile dis-

charged through the fistula decreased and finally disappeared. It was at this time that Pauchet did the secondary operation. It would have been better judgment to have permitted the sinus to close itself. Michaux has had in his own experience a thirty-four-year-old man who gave symptoms of infectious angiocholitis with jaundice. Exploratory laparotomy revealed considerable enlargement of the liver and lymphatic glands. The diagnosis was confirmed and a kind of massage carried out on the bladder and ducts. This, without cholecystostomy, completely cured the patient. Second, Routier and Quénu have had similar cases. In the presence of a true hypertrophic cirrhosis he had seen marked benefit follow a cholecystectomy, but only up to a certain point. The patient had very recently reported that he still suffers, though improved. When there is infectious angiocholitis, he rejects an anastomosis between the gall-bladder and the intestines, but regards a fistula opening upon the skin as preferable. Hartmann regarded the cholecystostomy in the case of Pauchet as unnecessary, because in the absence of jaundice, probably no obstruction to the bile-flow was present. Therefore, such cases get well after simple exploration, owing no doubt to the rest in bed and the post-operative diet and regimen.

ROUTIER, alluding to his case mentioned by Michaux, said the woman gave all the signs of obstruction of the common bile-duct, was treated solely by massage of the passages which probably dislodged a mass of mucus and established the free flow of bile into the intestine and cure.

LEJARS at the sitting of December 5th continued the subject by reporting a case with all the symptoms of biliary calculi with jaundice. No stones were found on exploration, but a cholecystostomy was done. The exposed liver had many appearances of cirrhosis, which were diminished or absent when the fistula was closed at a secondary operation. Michaux added that for clinical purposes it would be well to know the subsequent history of these cases of infectious angiocholitis in order to determine the character of the liver lesion. Quénu stated that he had followed many of his patients long and closely enough to be certain of their permanent cure. In one patient the lesion was a perihepatitis complicating a large cirrhosis. Nine years afterward the general condition of the patient was very satisfactory, although the size of the liver had not decreased.

PICQUE, at the meeting of November 21st, reported for Mesnard a recovery after wound and primary suture of the trachea. The man had attempted suicide and with a razor had made a ragged cut through several of the rings. With catgut a kind of trellis was made, apposing the edges of the tracheal wound. The method succeeded admirably.

NELATON, December 5th, contributed two cases of arthrotomy of the shoulder for old dislocation. Although the procedure was carried out under favorable conditions and the healing was satisfactory, the functional outcome was far from good. This corresponds with the report of Ricard at a previous

meeting of one case and with the experience of most authors in literature. On the other hand, Nélaton has treated twelve or more such old cases without the opening of the joint and the function was finally very excellent.

DELBET said that during the summer a patient in whom no lasting reduction of a shoulder dislocation could be done, demanded and was refused by him open restoration of the joint. Another operator consented, but finally had to resect the head in the interests of function. Ricard noted that since his previous report his patient had much improved, therefore he felt the operation should not be entirely abandoned.

MARTIN, at the Société de Chirurgie de Lyon, July 12th, referred to his treatise of 1887 on fractures of the lower jaw and the apparatus he then described for treating them, and emphasized the advantages of managing these cases with the mouth open. He now abandons all external splints except a molded rubber one. The posterior fragment is the one which gives difficulty by being hard to depress and reduce. The shorter this fragment is the greater its tendency to displacement. When the jaw is open the posterior part naturally is depressed and when fractured a very good reduction of the fragments is almost spontaneous. Retention in this position is then alone needed, for instance, with a wedge of wood or of some other material, which acting like a splint fixes the rear fragment while the front one is apposed carefully to it and held in position by the rubber external molded splint, which is best arranged to include the chin too. It is necessary to wear this combination until the first steps of union are accomplished. As a rule, the alignment of the fragments is most excellent. Massage may then be gently applied. Results are in proportion to the care of the primary reduction. The method has been continuously employed by the author for the past ten years, and always with satisfaction and success, in about forty cases. The method has the disadvantage of trying the patient a great deal and cannot therefore be used unless the disposition will tolerate it. When there is comminution of the bone, some form of internal splint must be applied to prevent deformity.

OLLIER exhibited a patient in whom gonorrheal synovitis had produced ankylosis of the elbow. The first treatment was forcible breaking-up of the adhesions, the prognosis of which was stated as doubtful in advance. At its ultimate failure, the patient demanded radical cure. The joint was freely opened and with the scissors attempt was made to divide all the hindering bands. Their extent made resection necessary, which, after free laying open of the soft parts, was done until free movements were obtained. Recovery was prompt and the result excellent, perfect flexion, a little hyperextension which will probably correct itself, and some lateral mobility which as the soft parts unite more with the condyles will tend to disappear. The final result will probably be very flattering. The point emphasized is wide exposure of the joint by freeing the soft parts all around the joint. Ollier also presented a case of resection of the hip,

in which choice had been between that and a cuneiform cervical section, for coxalgia and ankylosis with pain. The former was decided upon as well, as there was still an area of inflammation. At first the neck was sawn through, and then the head was removed. A most excellent result ensued, with perfect ankylosis. Ordinarily mere division of the neck or the cuneiform section would have been the choice, but the element of pain rendered resection advisable.

NORE-JOSSERAND, at the next meeting, showed a specimen from a little girl, four and a half years old, treated for congenital dislocation of the hip by the reduction of Lorenz. Death occurred during an attack of diphtheria. The muscles of the dissection were all normal as to color, consistency, nutrition and direction, being only a little the less heavy on the diseased side. The diaphysis of the femur was somewhat thin, the neck short and the head overdeveloped. The condyloid cavity was too shallow, but withal accommodated the head very well. The capsule was practically normal, even in its auxiliary ligaments. As a whole the joint had the appearance of being somewhat compressed, but was a very good articulation, except for the absence of the round ligament.

LE DENTU, at the Académie de Médecine, November 27th, reiterated the conservative findings recently enunciated by Lucas-Championnière and Berger during the last session as to the anticellular serumtherapy of Wlaiew in the treatment of malign tumors. Up to the present this method has given in the hands of surgeons at the best only uncertain results. Therein it is comparable to the serum from the streptococci of erysipelas, either free or mixed with that of the micrococcus prodigiosus, also the serum of animals inoculated with the juice and with the pulp of such tumors. The limited, though real efficacy of such inoculation seems to depend upon some temporary effect upon the elements occurring in common among all tumors as widely different as the sarcomata and the epitheliomata. Such common elements are, of course, at the present time not definitely differentiated. Or, again, such elements might be accessory and hence, though really and deeply affected, have no influence upon the essence of the tumor and therefore no cure results. It is likely that the best method of treating these malign invaders is by early wide extirpation. The earlier the diagnosis and the excision the better the result. Although absolute cure may not be obtainable, the general condition of the patient is benefited and alleviation is gained.

HIRTZ, at the Société Médicale des Hopitaux, November 23d, said that he differs somewhat from Vaquez who at the last meeting stated that he employs massage in phlebitis about twenty days after the onset, provided all the palpable veins have ceased to be tender, all pyrexia has vanished and all edema is frankly disappearing. For his own patients he prefers to wait longer, say at least four or five weeks after the onset, and in the presence of the same favoring factors. In many cases of rheumatic, gouty and varicose phlebitis he delays active interference still longer.

QUELMÈ (Faou) presented notes on a case of postpartum phlebitis in a multipara, appearing nine days after delivery, affecting at the onset only the two lower extremities, later extending to both upper extremities, and having pulmonary embolism with a pneumonia. In succession both eyelids became edematous, perhaps by thrombosis of the ophthalmic veins. High fever interrupted by chills persisted. Later weakness of the heart, dryness of the tongue, cerebral manifestations, and, as a final development, a purulent pemphigus of the lower extremities. Anuria, without albuminuria preceding it, appeared just before death.

STAFFER offered the account of a puerperal case in which for five days after delivery a subfebrile state persisted; after ten or twelve days of apyrexia a phlebitis of one lower extremity appeared with some fever. Soon the other lower, later one of the upper members became affected without edema. After fifteen days of this fever, the temperature suddenly rose to 41° C. and attacks of intense cephalalgia, with pain and spasms in the muscles, appeared. Warm baths relieved the condition and after about two weeks cure was established.

GAILLARD, at the meeting of November 30th, narrated the histories of two cases of acute idiopathic palpebral edema in children with arthritic antecedents. The first concerned a female four and one-half years old, who, while at the seashore, was overtaken with edema of one eyelid without any lesion of the eyeball or injection of the conjunctiva. It attained large proportions, persisted twenty-four to thirty-six hours, disappeared entirely and recurred after six weeks. There were in all eight relapses, first on the right, then on the left side. The second patient, also female, three and one-half years old, was after an attack of rheumatism left with a hydrarthrosis of the right knee, without fever. Five days later she had a papillary erythema of both lower extremities; on the morning of the seventh day the lids of the right eye were closed by an enormous edema, which also affected the left eye to a less degree. There was no conjunctivitis and no fever. In two days all this edema disappeared, but there remained purpura in the buttocks and bases of the thighs. Twelve days after their appearance all these signs had disappeared.

BARIE said that in at least one of these patients there was an eruption localized in the lids accompanying the erythema papulosa, attributable no doubt to digestive disturbances. Recently he had a patient who presented much swelling of the face during convalescence from a polymorphic erythema. Beside a rubeolic eruption of the forearms and scarlatiniform of the back and trunk, the patient had urticaria on the trunk and face. Notwithstanding the great variety of these cutaneous lesions, they were all probably due to an intestinal intoxication of some obscure type.

DU CASTEL said that simple localized urticaria would explain the characters of the phenomenon very well and had in support of it the fact that in one individual the disease began at the seashore.

SIREDEY showed a youth recovered from a severe attack of typhoid fever with disturbances of speech and motion as sequelæ. The motor lesions affected the lower extremities, especially the left, were accompanied by increased patellar reflexes and the toe affections of Babinski. The speech was of the scanning type so often seen in multiple sclerosis. Although intention tremors and nystagmus were absent, the author felt that this was probably the patient's disease. Hysteria was certainly not present.

BARBIER reported an observation of a girl eleven years, the subject of a primitive progressive myopathy, apparently originated in her infancy in the lower extremities; later the upper extremities, the trunk and the face became involved. There was a real generalized atrophy, but more or less pronounced according to the region. The buttocks and the gastrocnemii were with a few others really increased in volume. Notwithstanding their enlargement they were manifestly feeble. The gait was waddling, with the feet wide apart. She had very great difficulty in assuming the erect from the sitting or the recumbent position. The hereditary taint was direct, as a sister and a first cousin also had the disease.

SOCIETY PROCEEDINGS.

THE SOCIETY OF THE ALUMNI OF THE CITY (CHARITY) HOSPITAL.

Stated Meeting, Held October 10, 1900.

The President, W. L. Baner, M.D., in the Chair.

Acquired Heart-Disease in a Child Three Years Old.—This paper was read by Dr. Francis E. Butler. The case is interesting from the fact that it is one of acquired heart-disease with very extensive lesions. Such an extensive cardiac involvement at this early age is due, as a rule, to some congenital defect in the heart, either in the septum or pulmonic valves. When the condition was first manifest the boy was three years and six months old. How long before this the lesion began, and whether it was a rapid involvement or an insidious condition so common in children, was not definite. There was apparently no joint lesions. The family history is as follows: His mother had an attack of articular rheumatism while she was nursing him. His father had a brother who suffered from rheumatism. He has one sister and two brothers in good health, who gave no history or symptoms of rheumatism. One sister died of meningitis several years ago. He was nursed for a year and then fed on anything. Was a strong healthy child up to about a year ago, when he was admitted to the Hospital for Ruptured and Crippled for operation on bow legs. Osteotomy was done. He contracted whooping-cough in the hospital and was sent home. Soon after measles developed. He recovered from the measles and whooping-cough and soon regained strength. He was apparently well

for about four months. In June, 1900, the mother and brother noticed that on the slightest exertion he became short of breath, had great difficulty in breathing; he was pale and anemic, not eating much, very irritable, and could not sleep at night. Apparently there had been no history of pain, either in the joints or extremities. He was taken to the Outdoor Department of the Hospital for Ruptured and Crippled and the mother was told that the child had rheumatism. She then took him to the French Hospital; not improving there, he was brought to the Outdoor Department of St. Vincent's Hospital on July 28th, at which time the following points were learned.

Up to about nine weeks ago the child had been in perfect health, when he began to have great difficulty in breathing, lost weight rapidly, became pale, listless, irritable; when he walked or played a little he became short of breath, sighed and grunted, put his hand over precordial region, looked anxious and distressed. An examination at that time showed the pulse 144, respiration 70 and labored. He had a strong heaving pulsation all over the cardiac region. There was marked epigastric pulsation. The apex beat was forcible in the fifth intercostal space, almost under the sixth rib, about one inch outside the left nipple line. There was a distinct thrill and fremitus about the apex of the heart and ensiform cartilage. On auscultation, there was a loud, harsh, blowing murmur, apparently systolic and diastolic, strongest at the apex and transmitted to axilla and back, in fact, it was heard all over the chest, obscuring all other sounds of the heart except the pulmonic second sound in the second intercostal space, which was markedly accentuated. There were a few râles in the chest and a frequent, irritating cough. His liver was enlarged about three-quarters of an inch below the free border of the ribs. He was sent home, kept in bed as quiet as possible and fed on eggs and milk, meats and liquid peptonoids, about a dram every three hours.

On August 4th he was brought to the Dispensary. His brother said he complained of pain in the cardiac region, frequently put both hands over the cardiac area. There were a few pleuro-pericardial friction sounds. The heart condition seemed about the same at that time. He was given Fowler's solution (℥ iij, t. i. d.) and liquid peptonoids. About two weeks after that he reported at the Dispensary again and was doing much better; he did not complain of pain, dyspnea was not so marked; he ate better, the heart sounds seemed about the same and cough was less. On September 1st the general condition was much improved. He was able to play about and walk easily and breathe fairly well. He was given Fowler's solution (℥ v. t. i. d.) and liquid peptonoids; pulse 120, respiration 40. In two weeks he was much improved, could walk down three flights of stairs, but would not try to walk up, insisted upon being carried. He had lost the anxious expression of face.

He has been doing pretty well up to the present

time, not so well last week, probably due to the damp, heavy weather, which seemed to depress him. He had a great deal of difficulty in breathing; his dyspnea seemed more marked. He has a very loose cough. The heart sounds seem much improved, more localized at the apex, and the sounds of the aortic valves can be heard distinctly; the murmur is still heard over the whole chest; pulsation and heaving of precardium less forcible; apex beat still outside the nipple line in the fifth space; pulse 128, respiration 40.

Dr. William L. Stowell said that he had a case somewhat similar in a child four years old, with acute articular rheumatism and endocarditis. As to the treatment of these cases, cardiac stimulants had very little effect. Nearly all the benefit was gotten by tonic treatment. He had seen cases in which the condition was acquired. Children often outgrow these diseases. If the lesions were not marked, degeneration did not take place readily in the child. They outgrew a great many physical defects that an adult could not get over. In the case presented the regurgitation was considerable, and it would be remarkable if it should improve much; but where the lesion was less extensive and there was less dilatation, there was a good chance of their living to an average age. There were multitudes of people living who had had heart disease for many years. The earlier these cases were detected and the more successfully the patients could be nourished as they grew up, the more certainty of their overcoming the disease.

Dr. Walter L. Carr said this was one of the cases that were always of great interest. The condition of the heart was one that made the origin of the trouble doubtful. Many of these children with valvular disease have had rheumatism, and of that type which so often occurs in childhood, where there was no evidence of acute pain, frequently no symptoms of any joint trouble. There might be a family history, a little uncertainty as to so-called growing pains, or often no history at all. In this particular case there was some doubt as to the origin, in connection with the fact that the child had had pertussis and measles. There may have been symptoms of endocarditis at that time, as pertussis and measles are sometimes followed by myocarditis or endocarditis. It was hard to say much about the condition of the heart, that is, its actual strength. Very often there was degeneration of the heart-muscle, then again the child would get over such a condition; and while the prognosis was grave, such cases did recuperate, and with careful watching passed beyond puberty, to a comparatively old age. Sometimes we were skeptical about the recovery of these cases, where there was no evidence of it, no great hypertrophy, nor sign of interference with the circulation. The difficulty was to treat these cases properly, to allow the heart-muscle to regain its strength and for the general circulation to be carried on properly. These patients need rest, but if they were dispensary cases, medicine was often given, and

sometimes medicines which they did not need. Very frequently it was digitalis, which a great many children were better without. More frequently they needed something to act on the liver or to relieve the general systemic circulation. In private practice in such a case the child should be kept quiet in bed; then directions about having the bowels regular and the care of the digestion, so that the stomach and intestines were not distended after eating, should be given; so that the diaphragm would not be pushed up, the heart displaced, and the circulation made uneven from mechanical conditions. If the heart-action was weak, digitalis might be used; but more cases would be better without digitalis than with it. The heart-action would fall ten, fifteen and twenty beats if the child were kept quiet. Symptomatic medicines were often called for to relieve pain, stimulating cough mixtures for the bronchial membrane, and preparations of alcohol for a general tonic effect; but it was not thought that any child would do well with the indiscriminate use of alcohol, any more than the indiscriminate use of digitalis. One mistake was often made, naturally, that if the murmur was loud, the child was kept under treatment; but if it was a soft murmur, not well heard, the physician often thought the child was doing well. The low-pitched, soft murmur was sometimes due to the change in the heart-wall, and the child might then need the very digitalis and alcohol which were being discontinued. The kidneys should be carefully watched. The urine was sometimes albuminous, and at times showed casts. The whole matter of the care of these cases was primarily that of rest, which would, more than anything else, lessen the degeneration of the heart-muscle; and by slowing the heart-action certainly give it a chance to regain strength.

Dr. Adolph Rupp said he wished to ask only a few questions. Why call such cases in particular acquired? Everything after birth is acquired. With reference to the etiology, as regards rheumatic influences, it was often difficult to say whether so-called rheumatic affections are really rheumatic. Physiological chemists and bacteriologists are changing one's conceptions in these matters very much. Within the last two months he had treated two children who had had chronic diarrhea for weeks and months. After recovery from the diarrhea they had joint affections, and then developed cardiac murmurs and albuminuria. He asked whether the urine had been examined in the case presented.

Dr. Butler said he examined the urine twice and did not find albumin. He did not examine it with reference to casts.

Dr. R. C. Newton mentioned a case that he saw in consultation about five or six years ago. The boy had a similar history and lived to be about eight years old, when he was taken with pneumonia which was fatal. He secured the heart and brought it to the Section in Medicine at the Academy, where some of those present may have seen it. The lesion turned out on ex-

amination to be a case of perforate ductus arteriosus. On auscultation the heart sounds were very much like those in Dr. Butler's case. There was a loud double murmur, and a great deal of hypertrophy. The boy had a pale, pasty complexion and little muscular development.

Perforation Following Pink-Eye.—Dr. Geo. McAuliffe showed this case, not because it was particularly interesting or unusual, except that it was the consequence of pink-eye. No doubt everybody has treated a great many cases of pink-eye this year, and had gotten to look on it as fairly innocuous after antiseptic treatment was instituted. This boy had an attack of pink-eye about three weeks previously. The perforation of the cornea took place about a week ago. He was not particularly warned about his eye, was told to use the combination of bichloride solution, 1-5000, and boric acid. Further than that he did not give it any attention and did not think it wise to come back and see about his eye. The consequences were only too obvious. It illustrated the need of careful examination and watchfulness in contagious ophthalmias. The prognosis of pink-eye in itself was good. He had examined about 100 cases in the Harlem Hospital Dispensary and inside of four days the inflammation would be near an end. This was apparently an uncomplicated case of pink-eye; it had the ordinary treatment and was dismissed with twenty or thirty cases. The patient did not come back until the perforation, preceded by scarcely any symptoms, had taken place. It showed how necessary it was to watch contagious inflammations.

Skiagraph of a Case of Pneumonic Osteo-Arthropathy.—Dr. Newton showed a skiagraph of the right hand of this case. The disease had been described by Marie and had been alluded to by Osler. The ends of the fingers and toes were involved and the facial bones spared. In Marie's opinion the disease is due to a latent or very low form of tuberculosis. The patient came into the hospital suffering from a large axillary abscess, which was evacuated in the usual way, washed out with bichloride and drained. It did not recover during the speaker's service. It being thought that the abscess had not been cleaned out properly, it was scraped out, opened up freely, and two or three more drainage tubes put in, but the wound did not heal. It was again opened and scraped out, but the abscess only partly healed. Having this large axillary abscess and being well bandaged up, a thorough examination of the man's heart and lungs could not be made, but on partial examination there seemed to be nothing wrong with the heart or lungs. The man was a Hungarian, a farm laborer, thirty-four years of age, and of fair intelligence. He said that his brother and father both had these peculiar fingers and toes and broad nails. He declared that his nails had always been this shape. He has had three children of his own, two of whom died early. The survivor has the same sort of fingers.

(To be continued.)

**NEW YORK ACADEMY OF MEDICINE.
SECTION ON SURGERY.***Stated Meeting, Held December 10, 1900.*

Charles N. Dowd, M.D., Chairman.

Total Ureterectomy.—Dr. Willy Meyer presented a patient from whom the left ureter had been removed. The patient is a man of thirty-seven years of age, who suffered from pyelonephritis for several years and who four years ago had a left-sided nephrectomy performed. His general condition improved after the operation. He gained in weight and his febrile symptoms entirely remitted. The local symptoms were not improved, however, and he suffered from pain in the left side and from vesical irritation. There was frequent and imperative urination. Drainage through the perineum was suggested for this, and as long as the perineal opening remained his condition seemed improved, but as soon as it closed the old symptoms recurred. Washing the bladder was then done for a long time, but without any permanent benefit. Owing to the presence of a valve in the urethra, a steel instrument could not be passed. Cystoscopy was unavailable and it was impossible to collect the urine from the supposedly-healthy kidney and the secretion, if any, from the left ureter by means of urethral catheterization.

Diagnostic and Operative Technic.—Under these circumstances the following plan of determining the local condition was devised. The urine was passed and put aside; deep massage was then done over the region of the left ureter, and the urine was passed a second time. The second urine contained an amount of foul-smelling material that was not present in the first urine, and this showed that a septic infective process was at work in the ureter of the side on which nephrectomy had been done. Ureterectomy was decided on and the incision adopted was that suggested by Dr. James Israel of Berlin. The incision was carried parallel to the twelfth rib until the tip of the eleventh rib was reached. This wound was prolonged downward to the middle of Poupart's ligament and from there carried over to the median line. The ureter in this case was extremely hard to find because of the absence of the usual anatomical landmarks. The ureter was found buried in a mass of inflammatory tissue on the left side and was excised only after the most patient dissection.

Examination of Ureter.—This case emphasizes very forcibly the lesson that whenever nephrectomy is done, if the ureter is not removed with the kidney the operator should determine positively that there is no serious pathological process in it. In every case bougies should be passed down to the bladder to be sure that the ureter is free. Nephrectomy has failed in a number of cases to give the expected relief, because some pathological condition of the ureter remained unrecognized.

Sometimes the stricture will be found in the ureter at its entrance into the bladder.

Abnormal Appendicitis.—Dr. John Rogers presented three cases of peculiarities in appendicitis. In the first patient, a boy of thirteen, an ordinary appendiceal abscess was opened and a pint of fetid pus evacuated. The boy convalesced normally for ten days and then after having eaten some candy developed acute symptoms on the left side. There was pain, localized tenderness and vomiting that seemed to point to intestinal obstruction. A diagnosis of invagination of the intestine was made and an operation performed. Incision led to the evacuation of a pint of pus from this side and then the boy proceeded to get well again. Some two weeks ago afterward localized symptoms of pain and apparently of a collection of pus were noted in the epigastric region. He had been running an afternoon temperature for some days that pointed to the existence of a purulent focus. A diagnosis of abscess was made and a third incision made, this time in the epigastrium. No abscess was found, but an adhesive peritonitis existed. The intestines were found agglutinated. The abdomen was washed out, the wound closed. The patient made a good recovery. The second patient, a boy of fourteen years, when admitted to the hospital was supposed to be suffering from typhoid fever. A tumor was found in the left iliac region and there was an afternoon temperature. The condition was found to have developed after gastro-intestinal disturbance. Pain and tenderness were distinctly localized at the beginning on the left side. When young subjects suffer from acute pain following gastro-intestinal disturbance, the safest diagnosis is appendicitis. This was made in this case and an operation performed. The appendix was found to lie transversely across the abdomen, the tip of it being almost midway between the umbilicus and the anterior superior spine on the left side. The end of the organ was gangrenous and it was here that the abscess had formed.

In the third patient, a boy of six, an abscess was opened in the usual locality for the occurrence of appendiceal abscess, but the patient's condition was so bad that extensive search for the appendix was not justified. After the draining of the abscess the boy got better, but after about ten days he was given some German-seed cake, after eating which pain and tympanites developed. The temperature ran up and vomiting set in. Examination of the abdomen showed an area of dulness in the region of the gall-bladder. An incision was made over the point where the collection of pus seemed to exist and the tip of the diseased appendix was found in the middle of an abscess adherent to the first portion of the duodenum. The appendix was abnormally long.

Sponging for Peritonitis.—Dr. Berg presented a patient who had been suffering from typical appendicular symptoms. The case was not a severe one, however, the pulse being but 95 and

the temperature below 101° F. Shortly after the examination was made, intense abdominal pain developed and all the symptoms became very acute. The temperature rose to 104° F., the pulse to 130 and there was persistent vomiting. Operation was done as soon as possible, although several hours had elapsed and the pain had become so severe that the patient threatened to commit suicide. An intensely fetid peritonitis was found. The glands all over the abdominal cavity were enlarged. Pus was everywhere. The condition is described as diffuse peritonitis, not general peritonitis, because no examination of the lesser peritoneal cavity was made. The abdomen was carefully sponged out, sponges being carried well up under the liver and beneath the spleen and down into the pelvis. The reaction seemed almost marvelous. The operation was done late in the evening; the next morning the man was reading a newspaper and his temperature was 101.5° F. This is the eighth case in which Dr. Berg has used this method of sponging out for extensive peritonitis. In only one case has there been a fatal result. This took place as a consequence of an extensive abdominal phlegmon. The phlegmonous inflammation started from a stitch-abscess. Such abscesses are always a source of some danger in these cases, because, while the peritoneum seems to be perfectly capable of taking care of the infective material which may remain on it, the tissues of the abdominal walls do not prove so resistant. Four weeks after the operation the temperature in this case rose and signs of a subphrenic abscess were found. This was incised through the costal route in the axillary line. It is extremely difficult to clean out all parts of the abdominal cavity with sponges, and especially is it hard to reach the space between the liver and the diaphragm through an appendiceal incision.

Dr. Morris said that left-sided abscess is not infrequent and left-sided phlebitis sometimes occurs as a complication or sequela of appendicitis. Such abscesses are liable to develop some time after the original operation. During the height of the inflammatory reaction there exists a hyperleucocytosis which protects against infective material. Later on when the leucocytosis diminishes infective material is able to display its virulence.

Dr. Erdmann has had two cases of appendicitis in which the pain and tenderness occurred in the epigastric region and the abscess that formed was opened in this region. Dr. Erdmann asked if the pus in Dr. Berg's case had been examined bacteriologically and if the active agent in it had been found to be the bacillus coli communis. Dr. Berg replied that the bacillus coli communis had been found. Dr. Erdmann then said that the very fetid cases of peritonitis were always caused by the bacillus coli communis and that it was not a very virulent organism. He always congratulates himself in peritonitis cases when he finds that the

pus within the abdominal cavity has a very fetid odor, because the prognosis is very much better in these cases.

In closing the discussion Dr. Berg said that his experience had not been like that of Dr. Erdmann and that very fetid pus often meant intense peritonitis and a bad prognosis.

Operation for Movable Kidney.—Dr. Robert T. Morris said that when operation was first suggested for movable kidney the sutures to hold the kidney in place were passed only through the capsule. Later the stitches were passed through some of the kidney parenchyma also. The inventor of the operation reported as the result of 27 operations, 15 recoveries, 4 improvements, 7 relapses and 1 death. This would be considered a poor showing at the present time. Guyon made the first suggestion for the improvement of the technic of the operation. He removed the fatty and the fibrous capsule and hoped that the plastic lymph which formed on the surface of the kidney would fix it securely. This operation fixes the kidney. Pain after the operation is, however, not unusual. At least there is a feeling of persistent discomfort which while not quite painful is often seriously annoying.

Dr. Senn suggested a further improvement in technic. He removed the kidney fat and scarified the capsule, afterward packing the wound with gauze so as to induce a throwing out of plastic lymph and a formation of connective tissue that would hold the kidney in place. Dr. Morris has used this method of Senn's in two cases with excellent results. The healing of the incision is, however, too slow in this method and this makes it unsuitable for the majority of cases. Some simpler method seemed advisable.

Capsule Fixed to Muscle.—Dr. Morris noted some years ago a suggestion to strip the fibrous capsule from the kidney over a large portion of its surface, pass the flap thus formed through a slit in the psoas muscle and stitch it there. At times the normal position of the kidney and the anatomical position of the muscles makes the quadratus lumborum more available. The advantage of this method is that no injury is done to the parenchyma of the kidney. Injury of kidney substance is inevitable where sutures are passed through the organs. The absorption of the suture always leaves a band of fibrous tissue. Such kidneys present a change in the secreting substance, sometimes even at a distance from the suture tract. A number of good observers have thought that clinically they could notice the damage done to the secretory function of the kidney. This new method is a very satisfactory one, also because it seems to give less liability to relapses than do most other methods of kidney fixation.

Effects of Movable Kidney.—Certain serious effects produced by floating kidney apart from the general symptoms that are characteristic of the condition seem worth while noting. Gallstones frequently occur in cases of floating kid-

ney as the result of the pressure on the common bile-duct and the consequent interference with secretion and drainage. In a certain number of cases it has been noticed that the pressure of the loose kidney upon the duodenum has caused distention of the stomach. This is a true dilatation from obstruction and not merely a ptosis of the stomach as the result of a general relaxation of intra-abdominal tissue. In some cases it has been noted that pressure of the displaced kidney upon the superior mesenteric vein caused congestion of the cecum and appendix and so predisposed to attacks of appendicitis. The work of Dr. Edebohls especially has called attention to this complication of floating kidney, and his observations have been confirmed by a number of other investigators in recent years. Reflex gastric symptoms are very common as a result of irritation of terminal endings of the vagus nerve. Reflexes of the heart and of the esophagus are not so well known nor so frequently recognized, but they undoubtedly occur. In a recent case under Dr. Morris's care a patient presented most of the classical symptoms of esophageal stenosis. Bougies were used by prominent clinicians to overcome the esophageal stricture. Gastro-enterostomy, with backward dilatation of the esophagus, was suggested by surgeons in Boston and New Orleans. The patient found that, if he could lie down and keep his kidney in place during the act of swallowing, his difficulty was overcome. The irritation of the terminal nerves in the kidney sometimes sends reflexes into Auerbach's and Meissner's plexus. This occasionally gives rise to intestinal symptoms and predisposes to membranous colitis. This, of course, is a disputed question, but at least one recent case of Dr. Morris's seems to show a positive connection between the two affections. The patient was a physician who before operation for kidney fixation suffered from colic and the passage of mucous stools with membranous casts every morning for several years. Frequently during the day the colic and mucomembranous stools recurred. The man had become so exhausted that he considered it absolutely necessary to give up his practice. Since the operation he has had absolutely no distress, the attacks have disappeared, there is no mucus and no membrane in the stools. He has lost all his old tired feeling and he can work all day.

Palliative Treatment.—In the majority of cases of loose kidneys operation is not needed. Operation is necessary only when all ordinary mechanical means, bandages and the like, fail to keep the kidney in place or prevent the recurrence of reflex symptoms. Some loose kidneys give absolutely no symptoms. A short time ago, Dr. Morris had under observation a young woman who is a cross-country rider. She had noticed two funny things in her abdomen that seemed unusual and moved from place to place. They had not given her the slightest symptoms, she wanted to know what they were. In a cer-

tain number of cases floating kidney is associated with general enteroptosis, that is, a relaxation of the mesenteric attachments of all the abdominal organs that allows them to sag out of place. The liver, the stomach, the spleen, and the intestines may all hang lower in the abdominal cavity than they should and produce a reflex effect on nerves, as well as functional disturbance of the various organs. Surgical treatment of this condition is not so discouraging as many people consider it to be. All of the organs may be secured in place by making folds in their respective mesenteries. This operation is reasonably successful and produces an amelioration of symptoms that makes patients feel that they are practically cured.

New Kidney Tissue.—Dr. Edebohls said that a series of experimental observations made some years ago showed that new kidney tissue forms in kidney defects. When injury of the kidney causes destruction of the secreting substance proper, the defect is first filled in by connective tissue, but this is afterward replaced by true secreting substance. Dr. Edebohls has done 200 nephrorrhaphies, each time the sutures being made to pass through kidney substance. In not a single case has there been any subsequent discomfort traceable to the placing of the sutures in this way, nor have there been any clinical symptoms of interference with kidney function. The pain sometimes noted after operation for kidney fixation is usually due to a division of the ilio-inguinal and iliohypogastric nerves. These are important nerve-trunks and should be pushed aside. If from inadvertence or necessity one of them is severed, it should be sutured.

Capsule Insufficient Anchorage.—Dr. Edebohls does not think that the capsule of the kidney is ever sufficient to hold a movable organ in place. The liver presses down upon the kidney and in coughing, sneezing and the like, considerable strain is put upon the organ, which forces it from its bed unless it is well anchored. In Dr. Morris's method it is not the capsular tissue which holds the kidney in place, but the fact that the surface of the kidney is extensively denuded and that this gives rise to lymph exudation and formation of new connective tissue. Dr. Edebohls is perfectly satisfied with the method of passing sutures through the kidney substance. In all of his cases there have been only five relapses. These relapses occurred in cases operated upon seven and eight years ago, and during the last five years there have been no relapses.

Sponge Disinfection.—Dr. C. A. Elsberg presented a new and simple method of sterilizing sponges by boiling. Boiling under ordinary circumstances renders sponges hard, rough and inelastic and makes them very unabsorbent. These difficulties with sponge sterilization have caused them to be replaced very generally by gauze pads, although these are much less capable of absorption. The secret of Dr. Elsberg's method consists in the use of a solution in which

the albuminoid material of sponge is normally precipitated. The principal albuminoid constituent of sponge is spongein. This precipitates in a two-per-cent. solution of tannic acid, to which a one-per-cent. solution of potassium hydrate is added in equal parts. Sponges may be boiled in this solution any number of times and not lose any of their physical qualities. Bacteriological examination has shown that no germs exist on or in the sponges after sterilization by boiling. The sponges are first freed from calcareous material by being kept for some time in an eight-per-cent. solution of hydrochloric acid. They are then boiled on three successive days for a half-hour each day in the solution of tannic acid and potassium hydrate. This makes the sponges dark brown; they are then washed in sterile water until this color disappears. This makes a rapid, effective and inexpensive method of boiling sponges and when thus treated they may be used any number of times without danger.

Dr. Dowd said that this method fills a long-felt want in surgical technic, and that sponges treated by this method will surely be of the greatest service, as most surgeons are dissatisfied with the slight absorbent capacity of the gauze pledgets that are now in use.

MEDICAL ASSOCIATION OF THE GREATER CITY OF NEW YORK.

Stated Meeting, Held December 10, 1899.

The President, Robert F. Weir, M. D., in the Chair.

DISCUSSION ON SPINAL ANESTHESIA.

Neurophysiological Aspect of the Subject.—

Dr. J. Leonard Corning opened the discussion with this paper. He gave a brief account of the researches and experiments on animals and the human subject which led him to the discovery of the method of intraspinal cocainization now in vogue.

Spinal Analgesia in General Surgery.—This paper was read by Dr. George R. Fowler of New York. (See MEDICAL NEWS, Vol. 78, p. 1.)

Obstetrical and Gynecological Aspect.—Dr. Marx said that his earlier experimental cases were failures because cerebrospinal fluid did not escape. In the first case in which he got fluid he was badly frightened when the patient developed symptoms resembling locomotor ataxia; but felt relieved afterward when the woman gave birth to a child without knowing it. In all his cases since then he had obtained fluid, and he would not now think of injecting cocaine unless this was the case. In the one hundred and twenty-five cases in which he had used cocainization after obtaining fluid there had been two absolute failures, and in one other anesthesia was incomplete. While his results had been gratifying, it was by no means his purpose to recommend this method in all obstetrical cases.

It was unquestionably a serious matter, for when the cocaine injection was once within the spinal canal it was beyond the operator's control. As to the symptoms so well described by Dr. Fowler, they were so absolutely regular that he could not regard them as due to cocaine itself. In control experiments in which he had injected saline and other solutions, the same symptoms resulted, without the anesthesia produced by the cocaine. In one case that he had seen there were chilliness, rise of temperature, vertigo, and nausea and vomiting before cocainization, but they all disappeared when the fluid ceased to escape. He was convinced, therefore, that it was the loss of cerebrospinal fluid which caused the symptoms, and that the latter were simply nervous phenomena, the result of shock. From his experience he believed that these symptoms could be anticipated and prevented by the use of drugs, such as the bromides. The anesthetic effect was not apparently increased by injecting a large dose of cocaine, and the mistake was generally made, he thought, of using too large a quantity. He had found that one-sixth grain was ample, and in many cases one-twelfth grain would be all that was required. Eucaïne, in his experience, had proved absolutely without value. In labor, if cocaine anesthesia was complete, there was no necessity for bearing down, and the delivery would be accomplished without pain. It was of very great service in prolonged first stage. Any bad results which he had noted from its use were of an evanescent character, and gave him no uneasiness. In gynecology cocainization had but a limited field, but it was valuable in cases in which a general anesthetic was inadmissible. The method was contra-indicated in two classes of individuals. These were those on whom cocaine has no effect, and the highly neurotic.

Intraspinal Cocainization and the Anesthetist's Standpoint.—

Dr. S. Ormond Goldan said that he had employed the method in thirty-one cases and that his successes had been more numerous than his failures. After eliminating as far as possible all the causes of disappointment, however, he had still continued to meet with some cases in which the method was insufficient. Of all the anesthetics ether preceded by nitrous oxide gas was the safest, while cocainization, so far as one could judge at present, was the least safe, and should be resorted to only when a general anesthetic could not be given. In his patients he never failed to get fluid before proceeding with the injection.

In the general discussion which followed, Dr. V. P. Gibney spoke with considerable enthusiasm of the value of the method in orthopedic surgery. The patients whom he had selected were usually fifteen or sixteen years old.

Dr. E. H. Grandin had not been favorably impressed by the method. In two of the three cases which he had seen, the patients being neurotic Italian women, cocainization had failed to produce anesthesia, and in the third the anes-

thesia was incomplete. In obstetrics he did not think its use justifiable. In the minor operations of gynecology, if any anesthetic at all was called for, nitrous oxide gas left little to be desired, and in the major ones a general anesthetic was preferable to cocaineization.

Dr. Guiteras, in speaking of the five deaths reported by Tuffier, said that Tuffier himself seemed to think that only one of them was really attributable to the cocaine injection. He also gave a number of statistics reported by various European surgeons at the recent International Medical Congress in Paris.

Dr. W. S. Bainbridge had tested the method in a considerable number of children, whose ages ranged from two and one-half to nineteen years, and reported very favorable results. Eucaïne was less efficient, as a rule, than cocaine, but in one case it produced complete analgesia when the latter had previously failed.

Dr. F. Kammerer, who had forty cases, thought the method of great service in genito-urinary surgery, but of distinctly less value for intra-abdominal work. He always used as small a dose of cocaine as possible, generally one-tenth grain, and rarely over one-fifth grain.

Dr. R. F. Weir was the last speaker. In some of the ten cases in which he had tried the method at Roosevelt Hospital he had had a great deal of anxiety for a time, and so far it had not presented itself in a very encouraging way. Out of 400 cases which he had seen recorded there were, including the five reported by Tuffier, no less than eight deaths. Still, it was too soon to form a positive opinion in regard to its efficiency, and time must be allowed for further observation.

BOOK REVIEWS.

ATLAS AND EPITOME OF DISEASES CAUSED BY ACCIDENTS. By Dr. ED. GOLEBIEWSKI, of Berlin. Authorized Translation from the German, with Editorial Notes and Additions by P. BAILEY, M.D. Forty Colored Plates and One Hundred and Forty-Three Illustrations in Black. Philadelphia: W. B. Saunders & Company, 1900.

THIS volume considers diseases caused by accidents in their relation to the accident insurance laws of Germany. This law gives to workmen disabled by accidents, occurring in connection with their work, indemnities varying from two-thirds of their ordinary wages for total disability down, according to the degree of disability and their wage-earning capacity. This indemnity is readjusted from time to time as the wage-earning condition of the insured becomes worse or better.

The book consists chiefly of histories of cases occurring in Golebiewski's practice, illustrating the symptoms and sequelæ of accident-injuries as discussed in the text in reference to the adjustment of the accident insurance.

In this country the work will prove of value only

to those physicians and lawyers (chiefly the latter) interested in settling legal claims for damages for injuries due to accidents.

The best part of the book is the illustrations, of which the colored ones are beautiful examples of the artist's and lithographer's skill. The American editor has made some additions bringing the book in accord, in part, with the laws of this country.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Thirty-Third Annual Meeting, Washington, D. C., May 1, 1900. Vol. VII., Part III. Published by the Society. Printed by Mercury Publishing Company, New Bedford, Mass.

THESE transactions are remarkable for two things apart from their intrinsic value, *vis.*, their brevity and their focus. Of seven papers read, three by Drs. Hiram Woods, E. B. Dench and Ed. Friedenberg, deal with Sinus Thrombosis and Its Congeners; two by Drs. H. Knapp and G. Bacon, with Extensive Caries of Mastoid and Cerebral Abscess (and the remaining two with Chronic Ear Vertigo and Clinical Anatomy of the Eustachian Tube. Thus, five papers treated of chronic suppurative ear troubles, dangerous to life, showing how otologists recognize that they are driven into the most vigorous kind of struggle with destructive forces in the treatment of ear diseases. As one would expect, therefore, the papers throb with interest, the discussion of them not less so. Both writers and speakers are men of strength in their department and the Transactions have a corresponding value. In addition to the above, this volume contains forty-two pages of a valuable otological bibliography, alphabetically indexed for the period June 1, 1899, to June 1, 1900, compiled by Mr. Henry Alderton, of Brooklyn.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY. Thirty-Sixth Annual Meeting, Washington, D. C., 1900. Hartford: Published by the Society.

THIRTY-FIVE papers were presented by twenty-eight members on fifteen phases of eye-study. There were two papers on entropion which were well discussed; six on vascular and other tumors of the eye and orbit; five on intranasal conditions; five introducing new apparatus; five concerning the sight-perceiving elements; three about lens conditions and one each on surgical treatment of high myopia, excision of the lacrimal sac, disease of the choroid, treatment of dendritic keratitis, glaucoma, histology of the lacrimal gland, spastic strabismus and pseudo-sympathetic inflammation from blind eyes.

Two of the new devices are lanterns for testing color-perception presented by Drs. Wm. Thomson and C. H. Williams. The intranasal conditions are affections of the accessory sinuses involving the orbit and pressure symptoms between the middle turbinate and the ethmoid cells—headaches like those from ocular asthenopia. In these latter the treatment is radical, *i. e.*, removal of the turbinate. The charts are placed where they belong in the text and thus add greatly to the value of these transactions.

Manual of the Diseases of the Eye. By CHARLES H. MAY, M.D., Instructor, Eye Department, in the College of Physicians and Surgeons, Medical Department of Columbia University. New York: William Wood & Company, 1900.

THIS new manual for students and general practitioners treats diseases of the eye in "a concise, practical and systematic way," as the author states it. The book is small enough to go into the pocket, yet it is comprehensive of its subject. It is "up to date." The arrangement is excellent, because it takes up the subject just as the specialist would take up and carry through a thorough examination of the patient. Besides it completes the treatment as it goes along. When an operation is needed, it is done. Thus, the book interests one from the start. Scientific use of laws of optics comes in for its proper share of attention well on in the book after interest has been aroused and maintained and need for the knowledge in its application to lenses has arrived. Two figures, 168 and 175, are especially helpful to lucidity. When the avowed purpose is considered and originality is disclaimed, the work has merit in all its features.

Original Contributions Concerning the Glandular Structures Appertaining to the Human Eye and its Appendages. With Seventy-One Original Illustrations. By ADOLPH ALT, M.D., Professor of Ophthalmology in Beaumont Hospital Medical College, St. Louis. American Journal of Ophthalmology, St. Louis.

AFTER years of patient dissection and work with the microscope, Dr. Alt has given us the result of his investigations on the histology of the glands pertaining of the eye, in a book with only a few pages of text but beautifully illustrated with seventy-one original illustrations. This field has not been much worked. The author's studies substantiate the findings of A. Tersen of Paris, and their two works stand alone as complete monographs on the subject. They show, among other things, that there are many glands in the eyelids of like structure with the lacrimal gland and which evidently perform the same function, enabling the eyes to endure without detriment, abatement of the larger gland. The plates with their explanatory notes give us a valuable and needed addition to the literature on the eye.

Pathology and Morbid Anatomy. By T. HENRY GREEN, M.D., F.R.C.P. Ninth American Edition, Revised from the same English Edition. Lea Brothers & Co., Philadelphia and New York.

DR. GREEN's book of pathology has been so extensively welcomed in the past that it needs no words of introduction at this time. To those who had the opportunity of knowing the previous editions, it will at once be evident that the old arrangement has largely been adhered to; some of the sections, notably those treating of hematology and neuropathology, have undergone considerable revision and addition. The admirable plates of the malarial parasites will be welcomed by all students; the cycle of development is so well shown that any text almost seems superfluous. The etiological con-

sideration of the malarial fevers has been brought up to date by a short mention of the mosquito in this connection, as well as by the drawings of the *Culex* and *Anopheles*. In the matter of drawings it is to be regretted that so few are of the same excellence as those found in the chapter on blood.

Some excellent text-books on pathology have made their appearance on the American market within the last two or three years; just what position will finally be accorded each will be interesting, but it would prove unwise to predict at the present time. Dr. Green's book has done good service in the past and no doubt many will still consider it an excellent book for students.

BOOKS RECEIVED.

A CLINICAL TREATISE ON FRACTURES. By Dr. W. B. Hopkins. 8vo, 268 pages. Illustrated. J. B. Lippincott Company, Philadelphia.

EXPERIMENTAL RESEARCH INTO THE SURGERY OF THE RESPIRATORY SYSTEM. By Dr. G. W. Crile. Second Edition. J. B. Lippincott Company, Philadelphia.

THE ESSENTIALS OF PRACTICAL BACTERIOLOGY: An Elementary Laboratory Book for Students and Practitioners. By Dr. H. J. Curtis. 8vo, 290 pages. Illustrated. Longmans, Green, & Co., New York, London and Bombay.

TEXT-BOOK OF PHYSIOLOGY. Edited by E. A. Schäfer, LL.D., F.R.S. Volume Second. 8vo, 1363 pages. Illustrated. The Macmillan Company, New York.

MUSHROOMS, EDIBLE AND POISONOUS. Studies of American Fungi. By Geo. F. Atkinson. 8vo, 300 pages. Illustrated. Andrus & Church, Ithaca, N. Y. \$3.00.

MASSAGE IN RECENT FRACTURES. A Series of Lectures. By W. H. Bennett, F.R.C.S. 8vo, 97 pages. Illustrated. Longmans, Green, & Co., New York, London and Bombay.

THE PRESENT POSITION OF THE TREATMENT OF SIMPLE FRACTURES. An address. By W. H. Bennett, F.R.C.S. 8vo, 40 pages. Longmans, Green, & Co., New York, London and Bombay.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By Dr. Horatio C. Wood. Eleventh Edition. By Drs. Horatio C. Wood and Horatio C. Wood, Jr. 8vo, 850 pages. J. B. Lippincott Company, Philadelphia and London.

A MANUAL OF SURGICAL TREATMENT. By Drs. W. Watson Cheyne and F. F. Burghard. Vol. IV. Lea Brothers & Co., Philadelphia and New York.

THE AUSTRALASIAN MEDICAL DIRECTORY AND HAND BOOK. Edited and Compiled by Ludwig Bruck. Fifth Edition. L. Bruck, Sydney.

COMPARATIVE PHYSIOLOGY OF THE BRAIN AND COMPARATIVE PSYCHOLOGY. By Jacques Loeb, M.D. 8vo, 309 pages. G. P. Putnam's Sons, New York.

PROCEEDINGS OF THE EIGHTH ANNUAL MEETING OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES. Held at Kansas City, Mo., Sept. 27, 28 and 29, 1899. Berlin Printing Company, Columbus, Ohio.

OBSTETRIC CLINIC. By Dr. Denslow Lewis. 8vo, 652 pages. Illustrated. E. H. Colegrove, Chicago.

SEXUAL DEBILITY IN MAN. By Dr. F. R. Sturgis. 8vo, 432 pages. Illustrated. E. B. Treat & Company, New York.